



TABLE No. 2.









### TABLE No. 3.

ACCIDENTS TO TRAINS, ROLLING-STOCK, &c., reported during the Third Quarter of 1888 as having occurred on the several RAILWAYS open for Traffic in INDIA, distinguishing the different Classes of Accidents, and the Number of Passengers and Others, and of Railway Servants, KILLED or INJURED in each Class of Accident.

SEE ALSO TABLE NO. 4.																																																																																						
STATE IMPERIAL.																																																																																						
EAST INDIA. (a)						RAJPUTANA-MALWA. (b)						BENGAL-NAGPUR. (c)						MYSORE.						SOUTHERN MARRATHA. (d)																																																														
No.		Number of Passengers and others.		Number of Servants.		Total all Classes.		No.		Number of Passengers and others.		Number of Servants.		Total all Classes.		No.		Number of Passengers and others.		Number of Servants.		Total all Classes.		No.		Number of Passengers and others.		Number of Servants.		Total all Classes.																																																								
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.																																																							
1.	Collisions between passenger trains, or parts of passenger trains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
2.	Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing foul of the line ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
3.	Collisions between goods trains, or parts of goods trains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
4.	Collisions between light engines ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
5.	Passenger trains, or parts of passenger trains, leaving the rails ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
6.	Goods trains, or parts of goods trains, engines, &c., leaving the rails ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
7.	Trains or engines travelling in the wrong direction through points ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
8.	Trains running into stations or sidings at too high a speed ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
9.	Trains running over cattle on the line ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
10.	Ditto over obstructions on the line ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
11.	Ditto through gates at level-crossings ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
12.	The bursting of boilers of engines ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
12(c).	Ditto of tubes, &c., of engines ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
13.	The failure of machinery, springs, &c., of engines ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
14.	Ditto of tyres ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
15.	Ditto of wheels ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
16.	Ditto of axles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
17.	Ditto of brake apparatus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
18.	Ditto of couplings ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
19.	Ditto of tunnels, bridges, viaducts, culverts, &c. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
20.	Broken rails ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
21.	The flooding of portions of permanent-way ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
22.	Slips in cuttings or embankments ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
23.	Fire in trains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
24.	Fire at stations, or involving injury to bridges or viaducts ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
25.	Other accidents ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
TOTAL ALL CLASSES		39	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																																																							
Number of Passenger miles ...		208,415,917																	91,913,056																	4,947,632																	5,108,603																	25,718,328																
" of Servants employed ...		25,248																	12,563																	5,153																	845																	6,023																
Train-mileage of all descriptions		1,949,456																	1,368,930																	93,245																	40,204																	395,108																
(a) Includes Sleds, Patna-Gya, Dildarnagar-Ghazipur and Tarakeswar Railways.																			(b) Includes Kaimi-Umaria Railway.																			(c) Not passengers.																			(d) Not passengers. One not killed and one occupant of the cart.																													

TABLE No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, &amp;c., reported during the Third Quarter of 1888, &amp;c.—continued.

		STATE IMPERIAL—continued.												STATE PROVINCIAL.											
		INDIAN-MIDLAND.						NORTH-WESTERN. (c)						WARDHA COAL.						LUCKNOW-SITAPUR-SHINA MAU.					
		No.		Number of Passengers and others.		Number of Servants.		No.		Number of Passengers and others.		Number of Servants.		No.		Number of Passengers and others.		Number of Servants.		No.		Number of Passengers and others.		Number of Servants.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains, or parts of passenger trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines, and vehicles standing or foul of the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Collisions between goods trains, or parts of goods trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Collisions between light engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Passenger trains, or parts of passenger trains, leaving the rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. Goods trains, or parts of goods trains, engines, &c., leaving the rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Trains running over cattle on the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Ditto over obstructions on the line	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Ditto through gates at level-crossings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. The bursting of boilers of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12(a). Ditto of tubes, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14. Ditto of tyres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Ditto of wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Ditto of axles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17. Ditto of brake apparatus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Ditto of couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19. Ditto of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20. Broken rails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. The flooding of portions of permanent-way	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22. Slips in cuttings or embankments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23. Fire in trains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25. Other accidents	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>TOTAL ALL CLASSES</b>	...	6	...	...	...	...	...	84	...	...	...	...	...	1	...	...	...	...	...	9	...	...	...	...	...
<b>Number of Passenger miles</b>	...	2,984,598	...	...	...	...	...	125,401,551	...	...	...	...	...	782,946	...	...	...	...	...	2,760,770	...	...	...	...	...
<b>of Servants employed</b>	...	1,923	...	...	...	...	...	24,720	...	...	...	...	...	433*	...	...	...	...	...	651	...	...	...	...	...
<b>Train mileage of all descriptions</b>	...	35,181	...	...	...	...	...	1,917,109	...	...	...	...	...	17,592	...	...	...	...	...	35,789	...	...	...	...	...

(a) Includes Amritsar-Faizkot and Rajpura-Bhatinda Railways.

\* Includes 24 servants employed on Colliery.

(b) Includes Northern Bengal, Decca, Kanba-Jharila, Assam-Bihar and Bengal Central Railways.







TABLE No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Third Quarter of 1888, &c.—continued.

[illegible]

(u) Includes Cuddapah-Nellore Railway.

(b) Includes Dhood-Manmád, Bhopal-Itarsi, Khimgaon and Amroli Railways.

TABLE No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, &c., reported during the Third Quarter of 1888, &c.—continued.

SEE ALSO TABLE No. 4. ASSISTED COMPANIES.																														
DARJEELING-HIMALAYAN.						DECCAN.						BENGAL AND NORTH-WESTERN.						BOHLEKHAND-KUMAON (a).						TRAVANCOOR-DETINIA/IE.						
No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	No.	Number of Passengers and others.		Number of Servants.		Total all Classes.	
	Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.			Killed.	Injured.	Killed.	Injured.		Killed.
1.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL ALL CLASSES					16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Number of Passenger miles					...	271,516	...	...	...	203,587	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" of Servants employed					...	538	...	...	...	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Train mileage of all descriptions					...	35,843	...	...	...	3,280	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

(c) Includes Bardilly Pilibhit Railway.



TABLE No. 3.—ACCIDENTS TO TRAINS, ROLLING-STOCK, PERMANENT-WAY, &amp;c., reported during the Third Quarter of 1888, &amp;c.—continued.

SEE ALSO TABLE No. 4.										NATIVE STATES.										BMA'YASAB-GONDAL-JUNA GARE-PORABANDAR.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
ASSENTED COMPANIES—continued.										THE GUJARAT (GUJARATI COMPANY).										THE GANESHWAR'S.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
DISEC-SANYA.										THE KANAR'S (KARNATAKA COMPANY).										THE KANAR'S (KARNATAKA COMPANY).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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(a) Includes several trivial accidents.





TABLE No. 4.





Third Quarter of 1888, distinguishing the different Classes of ACCIDENTS, the Number of PASSENGERS and OTHERS, and the KILLED or INJURED thereby.

(g) Includes Cuddapah-Nellore Railway.  
(h) " Dhond-Mannad, Bhogni-Harol, Khamgaon and Amnoli Railways.  
(i) Bareilly-Pilibhit Railway.  
(j) Not passengers (see note (e) at foot of Table No. 3 under Southern Mahratta Railway.

Extract from a Report on the Accident which occurred at mile 115½ North-East Line, Great Indian Peninsula Railway, at 3-20 a.m., on the 23rd July 1888, to the Up Mail Train, from Jubbulpore to Bombay.

This accident took place on a bridge about  $\frac{2}{3}$ ths of a mile from the Násik station in the direction of Devláli. The bridge consists of nine spans of 30 feet arches, the height of rail level above the deepest point of the Nulla is about 40 feet, the bed of the Nulla is of rock, and on the night of the accident the stream was running about 50 feet wide and 2 to 3 feet deep.

The Jubbulpore Mail left Nándgaon at 12-55. The train had been examined there by Carriage Inspectors, and found in perfect running order. Everything went well between this station and Násik, which the mail reached up to time and left at 3-20. The distance between Násik and Devláli is 3½ miles and the time allowed to cover this distance is 8 minutes.

The train reached the bridge at a speed of about 20 miles an hour. Two-thirds of the bridge had been passed over safely when the engine and tender left the rails followed by 9 out of the 13 vehicles composing the train. They ploughed along the ballast and eventually came to a stop when the engine tender and front brake-van had cleared the bridge. The rest of the train remained on the bridge, all the carriages being in most perilous proximity to the parapet, so near indeed were they that had not the guard of the train stopped the passengers, some would certainly have been killed or injured by jumping into the river which they were on the point of doing. The total detention of the train was 6½ hours.

When it was daylight and an examination became possible, it was at once seen that the accident had been caused by removal of the fish plates, fish bolts and keys which formed the fastenings of one inside rail of the up track at a point one-third of the length of the bridge from its west or Devláli end.

From the Appendix it will be seen that eleven pairs of rails and their sleepers and fastenings were injured or destroyed. The damage done to the rolling-stock, considering the speed at which the train was running, is extraordinarily small, and amounts to only a few buffers cracked and a few carriage springs broken.

#### APPENDIX.

Description.	Number.	REMARKS.
Rails, iron, 24' . . . . .	3	Broken.
Ditto . . . . .	8	Badly bent.
Sleepers, wooden . . . . .	20	Broken.
Chairs . . . . .	36	"
Pots, cast-iron . . . . .	(pairs) 42	"
Plates, fish . . . . .	10	"
Bolts " . . . . .	20	"
Keys, wooden . . . . .	100	"

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
CIVIL WORKS.  
Irrigation.

REVENUE REPORT OF IRRIGATION WORKS IN THE NORTH-WESTERN PROVINCES  
FOR 1887-88.

No. 68 I, dated Calcutta, the 29th March, 1889.

RESOLUTION—By the Government of India, Public Works Department.

Read—

Letter No. 703 I., dated the 1st March 1889, from the Government of the North-Western Provinces, forwarding the Revenue Report of Irrigation Works in the North-Western Provinces for 1887-88, and the Resolution of that Government reviewing the Report.

RESOLUTION.—The following table shows the capital outlay during the year 1887-88 and up to the end of that year :—

	No. of Works.	DURING THE YEAR 1887-88.			TO END OF THE YEAR 1887-88.		
		Direct.	Indirect.	TOTAL.	Direct.	Indirect.	TOTAL.
MAJOR WORKS.							
Protective Works (account head 35)	1	R 75,705	R 8,253	R 83,958	R 38,92,990	R 2,07,254	R 41,00,244
Productive Works (account head 49)	4	15,18,440	1,02,252	16,20,692	6,71,49,209	47,63,776	7,19,12,985
MINOR WORKS.							
Works of which Capital and Revenue Accounts are kept (account head 43)	...	...	...	...	...	...	...
Works in operation	4	3,179	184	3,363	22,82,495	1,91,359	24,73,854
Surveys	3	84	—1	83	2,49,210	31,020	2,80,230
TOTAL MINOR WORKS	7	3,263	183	3,446	25,31,705	2,22,385	27,54,090
GRAND TOTAL	...	15,97,408	1,10,688	17,08,096	7,35,73,904	51,93,415	7,87,67,319

The Capital outlay of the year was principally on the Lower Ganges Canal. A sum of R14,51,354 was expended chiefly on the Nadrai aqueduct (which is now approaching completion, and will, it is believed, be open for the irrigation of the rabi crop, 1889-90) and on two drainage syphons in its neighbourhood. The remaining expenditure was mainly on drainage and distributaries on the Ganges, Agra and Betwa Canals.

2. There is a balance of nearly four lakhs unexpended on the estimate of the one Protective Work, the Betwa Canal. On three of the Productive Works (Ganges, Agra and Eastern Jumna) about 38½ lakhs remain to be spent to complete the projects. On the Lower Ganges Canal the expenditure is more than fifteen lakhs in excess of the sanction: a revised estimate of this project has been long promised by the Government of the North-Western Provinces. The following statement shows the stage of construction which the different Major Works have reached :—

		SANCTIONED.		COMPLETED.	
		Miles of canal.	Miles of distributaries.	Miles of canal.	Miles of distributaries.
<b>MAJOR WORKS.</b>					
Protective Works	Betwa Canal	182	379	167	259
Productive Works	Ganges Canal	463	3,000	437	2,559
	Lower Ganges Canal	566	2,457	564	2,021
	Agra Canal	149	600	109	558
	Eastern Jumna Canal	130	648	130	648
<b>TOTAL MAJOR WORKS</b>		<b>1,490</b>	<b>7,084</b>	<b>1,407</b>	<b>6,045</b>



The Minor Works, which consist of 20 miles of canals and 511 miles of distributaries, are completed.

3. The following statement shows the financial results of the year based on actual collections as compared with working expenses :—

CANAL.	Capital outlay to end of 1887-88.	GROSS REVENUE.			WORKING EXPENSES.			Net Revenue.	Percent- age of Net Revenue on Capital outlay.	
		Direct.	Indirect.	TOTAL.	Direct.	Indirect.	TOTAL.			
1	2	3	4	5	6	7	8	9	10	
MAJOR WORKS.										
Protective Works. } Betwa Canal .	41,00,244	30,556	...	30,556	82,937	6,759	89 696	—59,140	...	
Productive Works. {	Ganges Canal .	2,82,39,680	19,69,430	4,43,013	24,12,443	8,81,262	62,429	9,43,691	14,68,752	5'2
	Lower Ganges Canal .	3,14,95,555	10,64,997	2,07,829	12,72,826	8,62,815	52,242	9,15,057	3,57,769	1'1
	Agra Canal .	90,41,583	4,79,301	...	4,79,301	2,42,586	15,697	2,58,283	2,21,018	2'4
	Eastern Jumna Canal .	31,36,167	7,01,799	2,21,534	9,23,333	1,91,424	14,928	2,06,352	7,16,981	22'8
TOTAL PRODUCTIVE WORKS .		7,19,12,985	42,15,527	8,72,376	50,87,903	21,78,087	1,45,296	23,23,383	27,64,520	3'8
MINOR WORKS.										
Works for which Capital and Revenue Accounts are kept—										
In operation.	Dun Canals	6,37,731	56,400	24,080	81,380	34,255	2,552	36,807	44,573	6'9
	Rohilkhand Canals	16,83,748	72,982	50,070	1,23,052	93,896	8,393	1,02,289	20,763	1'2
	Bijnor Canals	69,977	12,746	8,172	20,918	3,771	330	4,101	16,817	24'0
	Bundelkhand Irrigation Works	82,398	1,093	1,299	2,392	3,460	208	3,668	—1,276	...
	Jhansi Lakes Hamirpore Lakes.		1,725	1,763	3,488	3,978	272	4,250	—762	...
TOTAL MINOR WORKS IN OPERATION . . . . .		24,73,854	1,44,946	86,284	2,31,230	1,39 360	11,755	1,51,115	80,115	3'2
Surveys . . . . .		2,80,236	...	...	...	...	...	...	...	
GRAND TOTAL .		7,87,67,319	43 91,029	9,58,660	53,49,689	24,00,384	1,63,810	25,64,194	27,85,495	3'5

NOTE.—These figures differ from the Finance Accounts in the following respects :—The Capital outlay, as shown in column 2, differs from the Finance Accounts, as it includes indirect charges which are not shown in the Finance Accounts. The indirect charges in column 7, which are mainly a calculation of liability for leave and pension allowances, are not shown in the Finance Accounts. Of the indirect receipts in column 4, which are a share of Land Revenue credited to Canals only that portion which pertains to "Major Works" is shown in the Finance Accounts.

The loss on the Betwa Canal is rather greater than in the previous year; but the table in para. 4 shows that the working of the canal is improving as the assessments of the year rose to R66,428. The irrigated area also has risen from 8,608 acres to 24,135 acres. There was an increase however in the cost of Establishment and of Repairs, and the net revenue both in the year under review and in the previous years has been considerably less favourable than the forecasts of the project anticipated.

In the Productive Works there has been a decrease in receipts and a slight increase in working expenses, the net revenue being about four lakhs below that of the previous year: the percentage on Capital is 3'8 as compared with 4'5. The decrease has occurred on the Ganges and Agra Canals, and is

	1887-88.	1886-87.
	R	R
Ganges . . . . .	24,12,443	26,48,937
Agra . . . . .	4,79,301	6,11,477

mainly due to the great falling off in the irrigated area of 1886-87, the rabi charges for which fall to be collected within the year 1887-88 as compared with 1885-86. The Lower Ganges Canal is still partially crippled by the failure of the Nadrai aqueduct, which is under reconstruction, and is only working at about three-fourths of its full power. The Minor Works, on the other hand, though the revenue has slightly diminished from R2,46,090 to R2,31,230, show a much larger decrease in working expenses, and the net revenue is more

than double that of the previous year. The percentage of net revenue to Capital on these canals was 3·2 in 1887-88 as compared with 1·48 in the previous year.

The Revenue Accounts of the Major Works in the North-Western Provinces show, on the whole, a profit of about 55 lakhs of rupees since the commencement of operations. That is to say, the net revenue up to date has exceeded the charges for interest on Capital by that amount. This favourable result is mainly due to the Eastern Jumna Canal, which has a surplus of ₹126 lakhs. The other canals, with the exception of the Lower Ganges, have still considerable balances against them. The Ganges Canal will, in all probability, soon clear off the charges remaining against it. The following statement shows the figures for the last four years:—

		EXCESS OF INTEREST CHARGES OVER NET REVENUE FROM COMMENCEMENT TO DATE.			
		1887-88.	1886-87.	1885-86.	1884-85.
MAJOR WORKS.		R	R	R	R
Protective Works—Betwa Canal		8,41,676	6,28,331	4,33,076	2,92,597
Productive Works.	Ganges Canal	35,86,560	39,94,792	83,49,508	87,60,441
	Lower Ganges Canal	4,39,322	—3,46,381	2,67,321	—84,766
	Agra Canal	21,90,534	20,77,452	23,68,899	22,26,654
	Eastern Jumna Canal	—1,25,63,909	—1,19,64,436	—1,08,26,652	—1,03,06,946
TOTAL		—55,05,817	—56,10,242	5,92,152	8,88,980

4. The following table shows the *assessed* revenue of the year, including share of land revenue, compared with that of three previous years. The second column shows the demand on account of occupier's rate, owner's rate, and share of land revenue. In the fourth column miscellaneous receipts are included:—

		1887-88.			TOTAL ASSESSED REVENUE.		
		Assessed Irrigation Revenue.	Rate per acre irrigated.	Total assessed revenue.	1886-87.	1885-86.	1884-85.
MAJOR WORKS.		R	R	R	R	R	R
Protective Works—Betwa Canal		63,779	2 6	60,428	23,157	13,794	...
Productive Works.	Ganges Canal	23,28,612	3 8	24,60,667	23,27,859	27,48,129	25,47,564
	Lower Ganges Canal	13,89,717	2 9	14,61,186	11,89,623	14,55,152	16,12,685
	Agra Canal	4,49,092	3 6	4,83,271	4,76,057	6,63,655	4,51,040
	Eastern Jumna Canal	8,11,167	4 6	8,66,336	9,08,103	9,20,041	8,24,345
TOTAL PRODUCTIVE WORKS		49,78,588	3 6	52,71,460	49,01,702	57,92,977	54,35,634
MINOR WORKS.							
Works for which Capital and Revenue Accounts are kept.							
In operation.	Dun Canals	58,309	3 7	85,386	75,958	77,000	72,468
	Rohilkhand Canals	1,26,252	1 3	1,30,523	1,18,387	1,20,062	1,24,509
	Bijnor Canals	22,429	2 6	23,103	15,540	19,545	16,933
	Bundelkhand irrigation Works.	2,372	4 0	2,790	6,226	6,416	4,311
		4,356	3 3	4,515		3,222	3,022
TOTAL MINOR WORKS IN OPERATION		2,13,718	1 7	2,46,317	2,16,111	2,26,245	2,21,243
GRAND TOTAL		52,56,085	3 4	55,84,205	51,40,970	60,33,016	56,56,877

The rate charged per acre compares thus with the rate in other Provinces for the same year—

North-Western Provinces	3'4
Punjab	2'2
Bombay	5'3
Madras	3'3

The assessed revenue of the year shows an improvement of nearly 4½ lakhs on that of 1886-87 which was an unusually, bad year, but it is more than 8 per cent. below the average of the previous six years. The explanation of this decrease in the assessment is due to the falling off in the irrigated area which, in the year under review, was about 300,000 acres or 16 per cent. below the average of the previous six years.

5. The areas irrigated by the different canals are compared with those of previous years in the following statement :—

	1887-88.	1886-87.	1885-86.	1884-85.
	Acres.	Acres.	Acres.	Acres.
<b>MAJOR WORKS.</b>				
Protective Works—Betwa Canal	24,135	8,608	12,356	..
Productive	Ganges Canal	601,904	574,440	741,636
	Lower Ganges Canal	470,942	359,003	462,302
	Agra Canal	124,557	122,096	176,721
	Eastern Jumna Canal	176,243	203,429	215,356
<b>TOTAL PRODUCTIVE WORKS</b>	<b>1,373,646</b>	<b>1,258,968</b>	<b>1,596,015</b>	<b>1,513,181</b>
<b>MINOR WORKS.</b>				
Works for which Capital and Revenue Accounts are kept—				
In operation	Dun Canals	15,398	12,472	12,306
	Rohilkhand Canals	93,694	78,554	79,927
	Bijnor Canals	8,510	4,183	6,588
	Bundelkhand Irrigation Works.	Jhansi Lakes	589	309
		Hamirpur Lakes	1,316	721
<b>TOTAL MINOR WORKS IN OPERATION</b>	<b>119,507</b>	<b>96,239</b>	<b>101,305</b>	<b>104,124</b>
<b>GRAND TOTAL</b>	<b>1,517,288</b>	<b>1,363,815</b>	<b>1,709,676</b>	<b>1,617,305</b>

There has been an increase in the areas, as compared with those of the previous year, in all canals except the Eastern Jumna, where there was a large falling off in the rabi area. The general decrease in the irrigated area, compared with that of the average of previous years, which is referred to in the previous paragraph, is explained, first, by the fact of the excessive rainfall of the year in question, and, secondly, by the fact that for four consecutive years the rainfall has been above the average: the amount of moisture in the soil generally tends to reduce the demand for irrigation.

6. The value of the crops irrigated during the year aggregated Rs. 5,20,72,286, which is about 76 lakhs in excess of the corresponding figure for the previous year. The average value per acre is Rs. 34'3, and the total value of the crops is considerably more than half the total capital invested in the works. The wheat crop is the largest and most valuable one: the area under wheat was one-third of the total area irrigated, and the value of the crop was 203 lakhs of rupees. Sugarcane and indigo are next in order: the sugarcane crop was valued at Rs. 130 lakhs, and the indigo at Rs. 42½ lakhs; the latter, however, was somewhat the larger in area.

7. The duty of each cubic foot of water entering the canals classed as Productive Works varied in the kharif crop from 41 acres on the Lower Ganges

to 94 acres on the Eastern Jumna. In the rabi crop the duty varied from 67 acres on the Agra canal to 185 acres on the Lower Ganges.

8. The working expenses of the year are higher than those of 1886-87, and exceed those of any previous year. The increase is almost entirely on the Betwa, Ganges and Lower Ganges canals. The Minor Works show a considerable reduction in expenditure. The following statement gives the figures :—

	1887-88.	1886-87.	1885-86.	1884-85.
	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
<b>MAJOR WORKS.</b>				
Protective Works—Betwa Canal . . . . .	89,696	76,277	2,136	...
Productive { Ganges Canal . . . . .	9,43,691	9,13,293	9,23,901	9,90,454
{ Lower Ganges Canal . . . . .	9,15,057	8,38,020	8,75,593	8,76,454
{ Agra Canal . . . . .	2,58,283	2,97,925	2,76,792	2,70,022
{ Eastern Jumna Canal . . . . .	2,06,352	2,20,288	1,95,730	2,06,883
<b>TOTAL PRODUCTIVE WORKS . . . . .</b>	<b>23,23,383</b>	<b>22,69,526</b>	<b>22,72,016</b>	<b>23,43,813</b>
<b>MINOR WORKS.</b>				
Works for which Capital and Revenue Accounts are kept—				
Dun Canals . . . . .	36,807	34,946	32,944	37,043
Rohilkhand Canals . . . . .	1,02,289	1,59,822	1,55,989	1,16,447
Bijnor Canals . . . . .	4,101	4,086	4,065	5,216
Bundelkhand Irrigation Works { Jhansi Lakes . . . . .	3,668	5,135	3,978	2,776
{ Hamirpur Lakes . . . . .	4,250	5,409	12,238	9,817
<b>TOTAL MINOR WORKS IN OPERATION . . . . .</b>	<b>1,51,115</b>	<b>2,09,398</b>	<b>2,09,214</b>	<b>1,71,299</b>
<b>GRAND TOTAL . . . . .</b>	<b>25,64,194</b>	<b>25,55,201</b>	<b>24,83,366</b>	<b>25,15,112</b>
<b>Rate per acre irrigated . . . . .</b>	<b>1.69</b>	<b>1.87</b>	<b>1.45</b>	<b>1.55</b>

The rate per acre for the Major Works was 1.85 in 1886-87 as compared with 1.72 in the year under review, the corresponding figures for Minor Works being 2.17 and 1.27 respectively. The total rate for this and other Provinces for the past year is compared in the following table :—

North-Western Provinces . . . . .	1.69
Punjab . . . . .	1.22
Bombay . . . . .	5.29
Madras . . . . .	0.80

9. The increase in the working expenses of the Betwa Canal is said to be due to the greater length of channels (some 200 miles) to be maintained. The increase on the Ganges Canal was due to extensive repairs to the Hardwar Dam and to Protective Works below the falls necessary on account of the large supply passed on to the Lower Ganges Canal. The increase on the Lower Ganges Canal is due to the larger sum written back to Revenue on account of the cost of the old Nadrai aqueduct, Rs 1,72,358 having been so adjusted in 1887-88 as compared with Rs 1,01,000 in 1886-87.

10. The details of the working expenses shown in the preceding paragraph are as follows :—

	1887-88.	1886-87.
	<i>R</i>	<i>R</i>
Works and Repairs . . . . .	12,03,962	11,96,586
Establishment . . . . .	11,76,685	11,62,338
Tools and Plant . . . . .	19,737	34,707
Indirect Charges . . . . .	1,63,810	1,61,570
<b>TOTAL . . . . .</b>	<b>25,64,194</b>	<b>25,55,201</b>



The charge for establishment again is made up of the following items :—

	1887-88.	1886-87.
	R	R
Share of Direction . . . . .	1,71,259	1,65,893
Executive Officers . . . . .	6,22,399	6,00,006
Medical . . . . .	8,625	5,489
Revenue . . . . .	2,28,232	2,27,469
Fees to Lambardars and Patwaris . . . . .	(a) 1,13,536	(a) 1,32,410
Navigation . . . . .	19,823	18,639
Plantations . . . . .	12,811	12,432
<b>TOTAL . . . . .</b>	<b>11,76,685</b>	<b>11,62,338</b>

(a) Includes collection charges in the Civil Department on account of owner's rates.

The cost of Direction and Accounts is divided rateably between the Irrigation, the Roads and Buildings, and other branches; the figure shown above is the proportion chargeable to Maintenance and Working Expenses. The Executive Officers employed on irrigation works form a distinct staff, but the actual cost of their salaries is divided between Capital and Maintenance; the charge shown above is the share of this cost, debited to the Revenue account of the canals. The share charged to Capital (including also the proportionate share of Direction and Accounts) amounted in 1887-88 to Rs. 2,56,937, i.e., about 23 per cent. of the cost of the Capital works. The charge for Medical Officers is almost entirely the cost of separate establishment employed on the canals. The cost of the Revenue employes includes the pay of the Civil Establishment as well as the pay of Deputy Magistrates, Zilladars, Amins and petty establishment employed on the Supervision of Irrigation, and the preparation of the returns on which the revenue is collected. Fees to Lambardars and Patwaris represent the commission paid to them at about 2½ per cent. on the revenue collected and paid into Civil Treasuries by them. The Navigation Establishment consists of a Traffic Manager, Assistant Toll Collectors and their menial establishments. The last head indicates the pay of Foresters, Gardeners, &c., employed on the supervision and maintenance of canal plantations.

11. The navigation receipts on the Upper and Lower Ganges Canals and on the Agra Canal were smaller than in the previous year: the working expenses were also smaller. The receipts were Rs. 25,235 as compared with Rs. 31,554 in the previous year, and the working expenses were Rs. 35,889 as compared with Rs. 41,450. The decrease in revenue was chiefly under the head of private boats on the Ganges Canal. Attention has frequently been drawn by the Government of India, and recently by the Secretary of State, to the fact that Navigation in the North-Western Provinces is carried on at a loss. It is explained that at present the main canal is closed between Gopalpore and Cawnpore every alternate week, to supply water to the Etawah Branch; but when the Nadrai aqueduct is completed there will be a continuous supply of water down both branches; and when the few remaining low bridges on the Upper Ganges Canal have been raised, it is believed that much larger use will be made of the opportunities for Navigation. There has also been a considerable reduction made in the cost of establishment during the current year. The value of the goods carried on the canals was about 25 lakhs of rupees.

12. The revenue realised from water-power on the Canals fell from Rs. 89,361 in 1886-87 to Rs. 69,362 in 1887-88: the decrease is explained to be due to the long canal closure of the year, and to the weaker demand for the mills: the decrease was mainly on the Eastern Jumna and the Ganges Canals. The revenue from plantations has been steadily increasing for some years past; it is now Rs. 1,79,754.

13. In addition to the Irrigation systems, which have been referred to in the foregoing paragraphs, there are certain canals in the Tarai and Bhábar which are under the jurisdiction of the Superintendent of the Tarai and the Assistant Commissioner of Kumaon Districts; but which have received a certain amount of attention in engineering details from the Public Works Department since 1886.

The Canals are mentioned in the Revenue Report for the first time. The areas irrigated amounted to 114,187 acres.

14. The Report which was due on the 15th November 1888 was received by the Government of India on the 4th of March 1889: though still much in arrears, this is an improvement on the previous year, when it was not received until the 15th of April. The Government of India trusts that the report will in future years be submitted on the date fixed.

ORDER.—Ordered, that copies of this Resolution and of the Report be forwarded to the Finance and Commerce, and the Revenue and Agricultural Departments for information.

Ordered also, that copies of this Resolution be forwarded to the Govern-

The Governments of Madras, Bombay, Bengal, and the Punjab.

The Chief Commissioner, Central Provinces, Burma and Assam.

The Resident at Hyderabad.

The Agents to the Governor-General for Central India and Rajputana.

ment of the North-

Western Provinces

for information and

guidance, and that

copies of the Resolution be forwarded to the Local Governments and Administrations in the Public Works Department noted in the margin, for information, and to the Foreign Department for communication to the Government of Mysore.

Ordered further, that this Resolution, and the Resolution by the Local Government, be published in the Supplement to the *Gazette of India*, and that copies of this Resolution be forwarded to Her Majesty's Secretary of State for India.

J G. FORBES, Colonel, R.E.,

Offg. Deputy Secy. to the Govt. of India.

## NORTH-WESTERN PROVINCES.

## Irrigation Revenue Report for the year ending 31st March, 1888.

No. 372½ I OF 1889.

GOVERNMENT OF N.-W. P. & OUDH.  
PUBLIC WORKS DEPARTMENT.  
IRRIGATION BRANCH.

DATED ALLAHABAD, THE 8TH FEBRUARY, 1889.

RESOLUTION—By His Honor the Lieutenant-Governor, North-Western Provinces, and Chief Commissioner, Oudh.

READ :—

Irrigation Revenue Report of the North-Western Provinces for the year ending 31st March 1888, by the Chief Engineer, Irrigation Works, North-Western Provinces and Oudh.

## CAPITAL OUTLAY.

RESOLUTION.—The total outlay on the capital account of canals in the North-Western Provinces and Oudh for and to the end of the financial year 1887-88 is shown below :—

	CANAL.	OUTLAY ON	CONSTRUC-
		TION UNDER	ALL HEADS.
		During	To end of
		1887-88.	1887-88.
Capital expenditure on Public Works not charged against Revenue. 49—Irrigation Works.	Upper Ganges . . . . .	R 97,250	R 2,82,39,680
	Lower Ganges . . . . .	14,51,354	3,14,95,555
	Agra . . . . .	52,571	90,41,583
	Eastern Jumna . . . . .	19,518	31,36,167
	TOTAL OUTLAY ON PUBLIC WORKS NOT CHARGED AGAINST REVENUE . . . . .	16,20,692	7,19,12,985
Irrigation. 43—Minor Works and Navigation.	Dùn Canals . . . . .	737	6,37,731
	Rohilkhand Canals . . . . .	2,685	16,83,748
	Bijnor Canals . . . . .	—59	69,977
	Bundelkhand Irrigation Works . . . . .	...	82,398
	Ditto ditto Survey . . . . .	199	1,74,145
	Sarda Canal Survey . . . . .	—116	49,345
	Cawnpore Branch Extension Survey . . . . .	...	56,746
	TOTAL OUTLAY ON MINOR WORKS AND NAVIGATION . . . . .	3,446	27,54,090
Famine relief and insurance. 35—Construction of Protective Irrigation Works.	Betwa Canal . . . . .	83,958	41,00,244
	GRAND TOTAL . . . . .	17,08,096	7,87,67,319



The Capital Expenditure was R2,01,532 less than in the previous year. The chief decreases, due to the approaching completion of works, were R1,62,314 on the Lower Ganges Canal, and R56,748 on the Betwa Canal.

#### ASSESSMENTS.

2. The gross assessments amounted to R55,84,205, or R4,43,235 more than in 1886-87; and the working expenses were R25,70,640, or an increase of R6,544.

The total net revenue was R30,13,565, or 3·83 per cent. on the total Capital of R7,87,67,319 invested in the Productive, Minor, and Protective Irrigation Works of the Province.

The net revenue on the four Productive Works alone, *viz.*, the Upper and Lower Ganges Canals, the Agra Canal, and the Eastern Jumna Canal, amounted to R29,41,755 or 4·09 per cent. on the Capital expended on them.

The interest charge on the total Capital amounted to R28,09,805; deducting which amount from the total net revenue, the assessments show a profit of R2,03,760 against a deficit in the previous year of R1,64,495.

#### REALIZATIONS.

3. The income actually realized from all sources was R53,56,135. After deducting working expenses and interest charges as before, there is a deficit of R24,310, due to loss on Famine Protective Works. The profit on the Productive and Minor Works amounted to R1,89,035; but this was counterbalanced by a loss of R2,13,345 on the Betwa Canal.

#### TOTAL INTEREST CHARGES.

4. The total interest charges on the Capital expended on all classes of Irrigation Works since their inception in the North-Western Provinces in 1830, amount to R5,31,63,270. The total *net* revenue derived since the above date, amounts to R5,98,56,391; thus showing a clear profit of R66,93,121, or 8·5 per cent. on the total Capital outlay

#### WORKING EXPENSES.

5. The working expenses under all heads, direct and indirect, amounted in 1887-88 to R25,70,640, or R6,544 more than in the previous year.

Under the sub-head of Establishment, there was an increase of R10,672, but a decrease of R1,10,342 as compared with 1885-86.

The percentage of working expenses to assessments on the four Productive Works is shown in the statement below :—

YEAR.	UPPER GANGES CANAL.		LOWER GANGES CANAL.		AGRA CANAL.		EASTERN JUMNA CANAL.	
	Assessments.	Percent- age.	Assessments.	Percent- age.	Assessments.	Percent- age.	Assessments.	Percent- age.
	R		R		R		R	
1883-84 . . .	28,40,019	32·48	16,81,426	41·42	8,13,712	31·00	8,21,088	25·61
1884-85 . . .	21,04,551	47·11	14,04,856	62·42	4,51,040	62·35	6,02,811	34·33
1885-86 . . .	23,05,116	40·12	12,47,323	70·27	6,63,655	42·11	7,04,507	27·84
1886-87 . . .	18,84,846	48·63	9,81,794	85·66	4,76,057	62·98	6,86,629	32·17
1887-88 . . .	20,17,654	46·86	12,53,357	73·10	4,83,271	53·90	6,44,802	32·20

The percentage remains practically the same on the Eastern Jumna Canal, but there is a satisfactory decrease on the other canals. As the assessments however depend so largely on the nature of the season, any percentages based on them cannot be entirely accepted as a true index, but only as an indication of the comparative ratio of the working expenses

The cost of measuring irrigation and preparing demand statements amounted to R35,472, or R2·33 per 100 acres against R2·58 in 1886-87. Owing to the bulk of the work being done by the permanent establishment, there is little difference in the total cost of different years, and the rate per 100 acres varies inversely as the area irrigated.

The cost incurred by the Civil Department in collecting the water-rate was  $\text{Rs. } 1,10,319$  or 2.71 per cent. on the gross collections against 2.93 per cent. in 1886-87.

Under Owner's rate the total balance outstanding was  $\text{Rs. } 3,881$ ; and under Occupiers' rate  $\text{Rs. } 33,501$ . Of this amount,  $\text{Rs. } 33,412$  was in course of liquidation, and only  $\text{Rs. } 89$  was reported as irrecoverable.

#### MILEAGE OF CANALS.

6. The following statement shows that 9,782 miles of channels have annually to be maintained :—

CANAL.	Main canal and branches.	Naviga- tion channels.	Escapes and mill channels.	Distribut- aries.	Drainage cuts.	TOTAL.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Upper Ganges . . . . .	437	19	62	2,559	895	3,972
Lower Ganges . . . . .	564	...	68	2,021	317	2,970
Agra . . . . .	109	25	10	558	37	739
Eastern Jumna . . . . .	130	...	23	648	313	1,114
Betwa . . . . .	167	...	12	259	12	450
Dún . . . . .	...	...	...	74	3	77
Rohilkhand . . . . .	20	...	...	331	3	354
Bijnor . . . . .	...	...	...	36	...	36
Jhānsi Lakes . . . . .	...	...	...	45	...	45
Hamīpur Lakes . . . . .	...	...	...	25	...	25
<b>TOTAL</b> . . . . .	<b>1,427</b>	<b>44</b>	<b>175</b>	<b>6,556</b>	<b>1,580</b>	<b>9,782</b>

There was an increase during the year of 94 miles of distributaries, 82 miles of which were on the Betwa Canal. Nine miles of new drainage cuts were also constructed.

#### IRRIGATED AREA.

7. The following table gives the area of "kharif" and "rabi" crops for 1887-88 and the previous five years :—

	KHARIF.	RABI.	TOTAL.	PERCENTAGE.	
	April to Sep-tember.	October to March.		Kharif.	Rabi.
	Acres.	Acres.			
1882-83 . . . . .	740,390	1,233,785	1,974,175	37.50	62.50
1883-84 . . . . .	825,747	1,471,927	2,297,674	35.94	64.06
1884-85 . . . . .	773,603	843,701	1,617,304	47.83	52.16
1885-86 . . . . .	702,259	1,007,417	1,709,676	41.08	58.92
1886-87 . . . . .	541,821	821,994	1,363,815	39.73	60.27
1887-88 . . . . .	612,436	904,852	1,517,288	40.36	59.64

The total area is 1,517,288 acres, or 12.7 per cent. less than the average area irrigated during the last 10 years; but compared with the preceding year there is an increase of 153,473 acres, or 11.3 per cent.

The early part of the "kharif" season was normal with occasional showers in April. Rain fell between the 13th and 23rd June, lessening the demand for irrigation. On the 2nd July the monsoon broke, and after that no more irrigation was done, except on the Eastern Jumna, Dún, and Rohilkhand Canals, which remained open for irrigation of rice. During July and August the rainfall was above the average, and good rain, in some places excessive, fell about the middle of September.

Nearly all the "rabi" crop was consequently sown without the aid of canal water. Towards the end of December light rain fell, but in the greater part of the country there was a good demand for water until the 22nd of January, when there was general rain which entirely stopped all demand except for fields previously irrigated.

## PRINCIPAL CROPS IRRIGATED.

8. The statement below compares the acreage of the principal crops during the last six years :—

CROP.		1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Kharif	Sugarcane . . .	198,322	155,147	153,652	175,944	168,452	197,532
	Rice . . .	104,046	111,512	92,687	100,706	109,513	102,367
	Indigo . . .	316,145	294,429	392,302	297,314	164,013	212,756
	Cotton . . .	52,493	93,545	66,791	60,580	41,835	47,912
Rabi	Wheat . . .	728,385	824,982	512,324	550,891	495,370	508,263
	Barley . . .	266,651	286,073	108,267	118,569	70,881	79,937
	Gram . . .	48,400	61,123	16,954	42,087	27,793	33,091
	Poppy . . .	16,233	16,370	10,762	15,629	14,679	12,957

The area under sugarcane was 197,532 acres, or only 1,009 acres less than that irrigated in 1882-83, which is the highest on record.

Indigo shows an increase of 48,743 acres, but the area under this crop is still 18 per cent. below the average.

Rice and poppy have slightly decreased, and cotton, wheat and barley increased. These fluctuations depend chiefly on the nature of the season.

During 1887-88 the double-cropped area was 15·6 per cent. of the total area, and 38·6 per cent. of the area under "kharif."

76·4 per cent. of the total irrigation was done directly by flow, and 23·6 by lift.

## VALUE OF CROPS.

9. The total value of crops raised with canal water was Rs. 5,20,72,286 as shown in table below, which is prepared from data supplied by the Agricultural Department :—

YEAR.	Area irrigated.	Value of crops.	Occupier's rate.	Value of crops per acre.	Occupier's rate per acre.	Percentage on value of crops.
	Acres.	R	R	R	R	
1885-86 . . .	1,709,676	4,97,91,920	43,21,185	29·12	2·53	8·68
1886-87 . . .	1,363,815	4,44,17,015	35,31,976	32·56	2·58	7·95
1887-88 . . .	1,517,288	5,20,72,286	39,03,962	34·32	2·57	7·50

## VILLAGES AND OUTLETS.

10. During the year 9,016 villages received water from 37,355 outlets. In addition to the above, 221 villages were watered from the Tarai Canals. The statements do not show the number of villages watered from the Bhábar Canals and the Bundelkhand Lakes.

## IRRIGATING DUTY.

11. The irrigating duty and the value of each cubic foot of water on the four main Canals are detailed in the accompanying table :—

CANAL.	AREA IRRIGATED PER CUBIC FOOT OF WATER AT HEAD.			TOTAL WATER-RATE PER CUBIC FOOT OF WATER AT HEAD.		
	1885-86.	1886-87.	1887-88.	1885-86.	1886-87.	1887-88.
	Acres.	Acres.	Acres.	R	R	R
Upper Ganges . . .	216	198	194	760	756	760
Lower Ganges . . .	138	111	166	415	343	491
Agra . . .	164	101	120	584	360	431
Eastern Jumna . . .	208	215	187	850	907	859



The water-rate per cubic foot is highest on the Eastern Jumna Canal and lowest on the Agra Canal, notwithstanding that the higher occupiers' rates are in force on the latter. The difference is chiefly due to the large area under first class crops, sugarcane and rice, on the Eastern Jumna Canal, as shown below:—

	Percentage of area under 1st class crops.						
Upper Ganges Canal	.	.	.	.	.	.	22'8
Lower Ganges "	.	.	.	.	.	.	5'4
Agra "	.	.	.	.	.	.	2'7
Eastern Jumna "	.	.	.	.	.	.	43'5

#### MAINTENANCE CHARGES PER ACRE.

12. The maintenance charges per acre irrigated are as follows:—

CANAL.	RUPERS.				
	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.
Upper Ganges	0'91	1'45	1'25	1'60	1'60
Lower Ganges	1'06	1'64	1'89	2'34	2'00
Agra	1'02	2'20	1'58	2'46	2'20
Eastern Jumna	0'76	1'24	0'91	1'09	1'18

#### NAVIGATION OPERATIONS.

13. The results of the year's navigation operations are given in the following table:—

CANAL.	1887-88.			1886-87.			1885-86.		
	Gross Revenue (Receipts).	Working expenses.	Deficit.	Gross Revenue (Receipts).	Working expenses.	Deficit.	Gross Revenue (Receipts).	Working expenses.	Deficit.
	R	R	R	R	R	R	R	R	R
Upper and Lower Ganges	14,700	28,449	13,749	19,820	35,119	15,299	20,026	31,924	11,898
Agra	10,535	7,440	-3,095	11,734	6,331	-5,403	5,674	5,321	-353
TOTAL	25,235	35,889	10,654	31,554	41,450	9,896	25,700	37,245	11,545

On the Upper and Lower Ganges Canals there was a loss of ₹13,749 against a loss of ₹15,299 in the previous year. As noted in previous reports, no material improvement can be expected until the new Nadrai Aqueduct is completed and constant running introduced on the Cawnpore Branch.

The Agra Canal shows a profit of ₹3,095 against a profit of ₹5,403 in 1886-87.

#### MINOR RECEIPTS.

14. The actual receipts realized from minor sources of income are exhibited below:—

	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.
	R	R	R	R	R
Plantations	1,47,040	1,49,502	1,60,657	1,75,542	1,79,754
Water-power	72,765	60,668	73,761	89,361	69,362
Miscellaneous	54,263	50,917	50,404	48,540	53,694

The decrease under water-power is mainly on the Ganges and Eastern Jumna Canals, and is due to the long canal closure and to weaker demand for the mills. In addition to the above the sum of Rs 31,995 was realized by the Superintendent, Kumaun-Bhábar, on account of water-power on the Bhábar Canals.

#### RAINFALL.

15. This was the fourth consecutive year of heavy rainfall. Over the whole of the Upper and Lower Ganges Canal the *mean* rainfall recorded during the last four years has exceeded the normal amount as shown by the Meteorological Department by 25 per cent.; on the Eastern Jumna Canal by 22 per cent.; on the Agra Canals by 20 per cent.; on the Rohilkhand Canals by 17 per cent.; and on the Dún Canals by 12 per cent.

At isolated spots, however, the falls have been far heavier. For instance, on the Narora Division of the Lower Ganges Canal, the Fatehgarh Branch of which traverses the Districts of Etah and Farukhabad, the actual rainfall during the four years ending 1887-88 was 156·3 inches, or more than double the amount that fell in the previous four years, *viz.*, 74·8 inches. Even in this small area the amount that fell in 1887-88 varied largely. From the head of the Lower Ganges Canal at Narora to the 12th mile of the Fatehgarh Branch the rainfall was 29 inches; from the 12th mile to the tail at the 60th mile the fall was 42 inches.

Owing to this abnormal rainfall, the country in this portion of the Etah and Farukhabad districts has become supersaturated; and it will require a series of dry years to restore it to the state it was in six or seven years ago.

#### DRAINAGE WORKS.

16. In the Resolution on the Irrigation Revenue Report for 1882, it was noted that complaints were made of the country being overdrained, and of the pasture lands suffering in consequence of the number of drainage cuts made by the Irrigation Department. At the present time, after a small cycle of wet years, the cry, even in some districts which complained before, is that sufficient drainage cuts have not been made.

There are now 1,580 miles of drainage cuts, of which 207 miles, besides very many masonry works, &c., for the passage of drainage, have been constructed since 1882: more drainage works will have to be made in certain localities; but it must be borne in mind that the primary function of a drainage cut is not, *per se*, to reduce the height of spring level, but to prevent the rain water being entirely absorbed into the ground and thus raising the spring level.

#### SPRING-LEVEL OBSERVATIONS.

17. Spring Level Observations continue to be carefully recorded as usual. The observations show a considerable rise during the four years 1883-84 to 1887-88; but there is little difference between the measurements of 1887-88 and the previous year.

As might be expected from the abnormally heavy rainfall, the portions of the Etah and Farukhabad districts traversed by the Fatehgarh Branch of the Lower Ganges Canal show a continuous rise. At the 7th mile from the head the spring level is 2·2 feet higher than it was in 1884-85; at the 25th mile it is 4·1 feet higher; at the 50th mile 6·3 feet; and three miles below the tail at the 60th mile it is 6·1 feet.

#### RIVER SUPPLIES.

18. The supplies in all the rivers were more than sufficient to meet requirements except for a few days in May and June, when the Jumna fell very low and short supply was obliged to be run in the Eastern Jumna and Agra Canals.

## PROFITS OF PRODUCTIVE WORKS.

19. The following statement summarizes and compares the net profits and the percentage on capital of the four Productive Works :—

	UPPER GANGES.		LOWER GANGES.		AGRA.		EASTERN JUMNA.	
	Net profit.	Percentage on capital.	Net profit.	Percentage on capital.	Net profit.	Percentage on capital.	Net profit.	Percentage on capital.
	R		R		R		R	
1883-84 . . .	23,60,388	8.45	11,92,654	4.45	5,61,425	6.47	8,32,307	27.96
1884-85 . . .	15,55,938	5.54	7,35,746	2.67	1,69,814	1.91	6,17,349	20.14
1885-86 . . .	18,23,237	6.48	5,78,616	2.04	3,84,202	4.32	7,29,881	23.51
1886-87 . . .	14,11,235	5.01	3,48,628	1.16	1,76,223	1.96	6,87,266	22.05
1887-88 . . .	15,15,236	5.37	5,44,980	1.73	2,22,802	2.46	6,58,738	21.00

## FAMINE PROTECTIVE WORKS.

20. The year under review was the second in which irrigation was done during both crops from the Betwa Canal.

In 1886-87 the revenue was R23,157, and the expenses R76,348; thus showing a loss of R53,191.

In 1887-88 the revenue was R66,428 and the expenses R89,713; or a loss of R23,285.

The area of crops sown was small, and there was ample supply of water. During the "kharif" season the level of water in the reservoir fell 10.8 feet against 11.5 feet in the previous year.

## MINOR WORKS.

21. On the Rohilkhand Canals there was a profit of R28,162 against a loss of R40,435 in 1886-87. On the Bijnor Canals the profit was R19,002 against R11,454 in the previous year.

On the Dun Canals there was a profit of R48,543 against R41,012 in 1886-87. On the Bundelkhand Lakes there was a loss of R613 against a loss of R4,318.

The Tarái and Bhabar Canals are for the first time shown in the Revenue Report of the year; but the returns regarding them are not included in the Canal statements, as no actual water-rate is levied.

The following statistics are given from data supplied by the Superintendent of the Tarái and Bhabar respectively :—

## TARÁI CANALS.

Area irrigated . . . . .	24,410 Acres.
Revenue . . . . .	24,309 R
Expenditure . . . . .	15,934 "
PROFIT . . . . .	8,375 "

## BHABAR CANALS.

Area irrigated . . . . .	84,099 Acres.
Revenue . . . . .	1,47,068 R
Expenditure . . . . .	46,906 "
PROFIT . . . . .	1,00,162 "

Apparently an arbitrary rate has been taken on both Canals as showing the probable revenue derivable from the water. In the case of the Tarái Canals this seems to be about R1.00 per acre; and R1.9 on the Bhabar Canals. The



large area under oilseeds on these latter Canals is noticeable. It was reported as 14,974 acres, while the area on the rest of the Canals in the province was only 3,458 acres.

**TOTAL NET PROFITS, INCLUDING ALL CLASSES OF WORKS.**

22. The net profits and the per centage on the total Capital outlay from all the Canals in the North-Western Provinces, except in the Taráí and Bhabar, is compared with the results of the ten previous years in the following statement :—

YEAR.	Capital at end of each year.	Net profits.	Percentage on capital.
	<i>R</i>	<i>R</i>	
1877-78 . . . . .	4,34,66,488	31,55,858	7.26
1878-79 . . . . .	4,46,21,616	38,28,437	8.57
1879-80 . . . . .	4,60,35,380	28,06,249	6.09
1880-81 . . . . .	6,45,61,716	35,38,941	5.48
1881-82 . . . . .	6,62,06,214	40,82,750	6.17
1882-83 . . . . .	6,76,33,960	43,01,052	6.36
1883-84 . . . . .	6,90,92,987	50,69,145	7.33
1884-85 . . . . .	7,02,83,698	31,28,769	4.45
1885-86 . . . . .	*7,51,49,595	35,44,623	4.72
1886-87 . . . . .	*7,70,59,223	25,76,874	3.34
1887-88 . . . . .	*7,87,67,319	30,13,565	3.83

\* Including the Betwa Canal.

**ORDER.**—Ordered that the above Resolution be submitted to the Government of India, and that it be published in the *North-Western Provinces and Oudh Gazette*.

Ordered also, that it be circulated to other Governments and Departments, as usual.

J. G. FORBES, *Col., R.E.*,  
Secretary, Public Works Department, N.-W. P. and Oudh.







## RETAIL PRICES FOR THE 2ND HALF OF FEBRUARY 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM (Sorghum vulgare).		BAJRA OR CUMBU (Pennisetum typhoides).		MARUA OR RAGI (Eleusine coracana).		KARONI OR KAKUM, ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, THUR, CADALAY OR SUNAGA (Cicer arietinum).		MAIZE (Zea Mays).		ARHAR OR TUR (Cajanus indicus).		FIRROOD.		SALT.	
	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.
<b>Bengal—continued.</b>																										
<i>Behar, south—</i>																										
Monghyr . . . . .	15 1	15 0	18 0	18 0	13 12	13 2	16 8	16 8	25 0	24 0	20 0	20 0	22 1	13 4	13 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	147 0	147 0	9 8	9 8
Gya . . . . .	15 0	14 0	22 8	22 0	10 0	10 0	15 0	15 0	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	200 0	200 0	8 12	8 12
Patna . . . . .	17 0	18 0	22 8	22 0	11 0	11 0	16 2	16 8	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	130 0	130 0	10 0	10 0
Shahabad . . . . .	16 0	15 8	20 0	20 0	9 0	9 0	15 0	15 0	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	160 0	160 0	10 0	10 0
<i>Behar, north—</i>																										
Patna . . . . .	12 0	13 0	17 0	17 0	15 0	15 0	18 0	17 0	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	200 0	200 0	9 0	9 0
Patna . . . . .	15 2	15 2	17 10	17 0	13 14	13 14	15 2	15 12	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	176 8	176 8	10 1	10 1
Shahabad . . . . .	16 8	16 0	18 12	18 0	10 0	10 8	15 8	15 8	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	176 0	176 0	11 0	11 0
Muzaffarpore . . . . .	12 0	12 0	18 0	18 0	9 0	9 0	12 8	12 8	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	160 0	160 0	10 0	10 0
Samt . . . . .	15 0	15 0	21 12	21 8	8 12	8 12	14 10	14 6	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	160 0	160 0	10 0	10 0
Champaran . . . . .	23 0	23 0	16 0	16 0	7 0	7 0	13 0	13 0	20 0	20 0	20 0	20 0	20 0	16 0	16 0	18 0	18 0	18 0	22 8	16 4	17 4	17 5	160 0	160 0	9 0	9 0
<b>N.-W. Provinces—</b>																										
<i>Eastern—</i>																										
Mirzapur . . . . .	14 8	13 12	19 0	18 0	8 0	8 0	13 0	13 0	17 8	17 8	17 8	17 8	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	100 0	100 0	10 0	10 0
Benares . . . . .	14 6	14 10	17 1	16 12	10 5	10 5	13 9	13 9	17 7	17 7	17 7	17 7	16 12	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	120 0	120 0	10 11	10 11
Ghazipur . . . . .	15 7	15 12	16 12	16 12	7 2	7 3	12 12	12 12	16 0	16 0	16 0	16 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	154 8	154 8	9 10	9 10
Jaunpur . . . . .	14 8	14 8	16 0	16 0	7 0	7 0	14 0	14 0	16 0	16 0	16 0	16 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	140 0	140 0	8 8	8 8
Allahabad . . . . .	14 8	14 12	20 0	17 8	8 0	8 0	12 0	12 0	18 0	18 0	18 0	18 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	9 0	9 0
<i>Central—</i>																										
Banda . . . . .	17 8	17 0	19 0	18 0	8 0	8 0	12 0	12 0	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	10 0	10 0
Fatehpur . . . . .	15 0	15 0	17 12	17 0	12 0	12 0	12 12	12 12	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	10 0	10 0
Hamirpur . . . . .	19 8	17 13	23 0	20 8	9 0	9 0	12 0	12 0	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	140 0	140 0	11 4	11 4
Jalaun . . . . .	18 0	17 0	20 0	19 0	9 0	9 0	10 0	10 0	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	140 0	140 0	11 0	11 0
Cannore . . . . .	17 8	16 8	22 0	20 8	9 0	9 0	10 0	10 0	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	150 0	150 0	11 12	11 12
Etawah . . . . .	17 4	15 12	18 8	17 12	5 8	6 8	11 12	12 8	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	150 0	150 0	11 8	11 8
Farukhabad . . . . .	15 12	15 0	20 4	20 0	6 8	6 8	10 8	10 8	19 0	19 0	19 0	19 0	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	10 4	10 4
Mainpuri . . . . .	17 12	15 12	21 4	19 0	4 0	4 8	14 0	14 0	20 12	20 12	20 12	20 12	16 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	11 12	11 12
Etah . . . . .	19 2	16 12	24 0	22 0	7 8	7 8	13 0	13 0	20 0	20 0	19 4	19 8	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	11 4	11 4
<i>Western—</i>																										
Lalitpur . . . . .	16 12	15 8	18 0	18 0	9 0	9 0	11 8	11 8	19 0	19 0	19 0	19 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	10 0	10 0
Jhansi . . . . .	16 0	14 6	19 0	19 0	7 8	7 8	11 8	11 8	16 12	16 12	16 12	16 12	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	10 8	10 8
Agra . . . . .	16 0	15 0	21 8	20 0	5 0	5 0	9 0	9 0	17 8	17 8	17 8	17 8	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	12 0	12 0
Muttra . . . . .	15 0	15 0	22 0	22 0	7 8	7 8	13 0	13 0	21 0	21 0	21 0	21 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	12 0	12 0
Aligarh . . . . .	15 0	15 12	22 0	20 8	6 0	6 0	12 0	12 0	21 0	21 0	21 0	21 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	12 0	12 0
Bulandshahr . . . . .	17 4	17 0	27 0	22 8	7 0	7 0	11 0	10 8	22 0	22 0	22 0	22 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	11 4	11 4
Meerut . . . . .	17 0	15 12	22 0	21 0	6 0	6 0	13 0	13 0	22 0	22 0	22 0	22 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	11 8	11 8
<i>Sub-montane—</i>																										
Balia . . . . .	15 8	15 4	19 4	19 4	10 8	10 8	16 0	16 0	18 4	18 4	18 4	18 4	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	155 0	155 0	9 12	9 12
Azamgarh . . . . .	14 0	13 10	15 15	15 15	10 5	10 5	12 8	12 8	16 0	16 0	16 0	16 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	177 8	177 8	9 13	9 13
Gorakhpur . . . . .	14 6	13 15	17 10	16 10	8 9	8 9	13 8	13 8	16 0	16 0	16 0	16 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	140 0	140 0	10 9	10 9
Basti . . . . .	16 8	16 8	20 8	20 8	8 8	8 8	14 0	14 0	20 8	20 8	20 8	20 8	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	140 0	140 0	10 0	10 0
Shahjahanpur . . . . .	18 8	17 8	23 8	22 8	6 8	6 8	14 0	14 0	20 8	20 8	20 8	20 8	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	11 0	11 0
Budaun . . . . .	18 0	17 0	24 8	23 8	6 8	6 8	14 0	14 0	20 8	20 8	20 8	20 8	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	11 0	11 0
Bulandshahr . . . . .	14 0	13 12	17 12	17 12	13 8	13 8	13 13	13 13	20 0	20 0	20 0	20 0	14 0	12 0	12 0	13 8	13 8	13 8	17 8	17 8	17 8	17 8	160 0	160 0	10 8	10 8

[illegible]

\* Not sold.  
 † For unhulled grain.  
 ‡ Six pies per bundle.  
 y In Taijore and Madhubani sub-divisions retail price of salt 10 sers per rupee.  
 z In Hailore and Sitamahi sub-divisions retail price of salt 10 sers per rupee.  
 si At Bettah retail price of salt 9-8 sers per rupee.

## RETAIL PRICES FOR THE 2ND HALF OF FEBRUARY 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU (Sorghum vulgare).		BAJRA OR CUNBU (Pennisetum typhoides).		MARUA OR RAGI (Eleusine indica).		KANGNI OR ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, CHOLU, KADALAY OR SUNAGA (Cicer arietinum).		MAIZE (Zea Mays).		ARHAR OR TUR CADIAN PEA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.
<b>Punjab—</b>																										
<i>Southern—</i>																										
Hissar . . . . .	18 0	19 0	24 0	24 0	10 0	10 0	23 0	23 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	24 0	25 0	18 0	18 0	11 0	85 0	11 0	11 0	11 0	11 0
Persepolis . . . . .	21 0	21 0	28 0	28 0	10 0	11 0	24 0	24 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0	22 0	28 0	28 0	24 0	24 0	12 0	100 0	11 0	13 0	13 0	13 0
Montgomery . . . . .	18 0	16 0	24 0	23 0	9 0	10 0	22 0	22 0	15 0	16 0	16 0	16 0	16 0	16 0	16 0	16 0	21 0	20 0	20 0	20 0	12 0	200 0	11 0	11 0	11 0	11 0
<i>Central—</i>																										
Gurgaon . . . . .	19 0	17 0	26 0	24 0	9 0	11 0	25 0	24 0	23 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	19 0	18 0	18 0	18 0	16 0	130 0	11 0	11 0	11 0	11 0
Delhi . . . . .	17 0	16 0	23 0	21 0	12 0	12 0	23 0	22 0	19 0	17 0	17 0	17 0	17 0	17 0	17 0	17 0	25 0	23 0	22 0	22 0	22 0	80 0	12 0	11 0	11 0	11 0
Rohat . . . . .	17 0	16 0	20 0	20 0	11 0	11 0	24 0	18 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	26 0	25 0	18 0	18 0	20 0	120 0	12 0	12 0	12 0	12 0
Karnal . . . . .	18 0	16 0	25 0	24 0	11 0	11 0	27 0	25 0	18 0	18 0	18 0	18 0	22 0	22 0	17 0	17 0	28 0	27 0	24 0	23 0	19 0	130 0	10 0	10 0	10 0	10 0
Lahore . . . . .	17 0	17 0	27 0	25 0	9 0	9 0	27 0	25 0	18 0	18 0	18 0	18 0	22 0	22 0	20 0	20 0	25 0	22 0	24 0	22 0	12 0	95 0	12 0	12 0	12 0	12 0
<i>Sub-montane—</i>																										
Umballa . . . . .	20 0	20 0	26 0	26 0	12 0	12 0	25 0	25 0	17 0	17 0	17 0	17 0	20 0	20 0	10 0	10 0	27 0	27 0	26 0	26 0	20 0	140 0	12 0	12 0	12 0	12 0
Ludhiana . . . . .	21 0	20 0	30 0	28 0	8 0	8 0	29 0	28 0	23 0	23 0	23 0	23 0	20 0	20 0	20 0	20 0	28 0	27 0	30 0	27 0	14 0	110 0	12 0	12 0	12 0	12 0
Jullundur . . . . .	20 0	20 0	28 0	28 0	12 0	12 0	26 0	26 0	24 0	20 0	20 0	20 0	14 0	14 0	20 0	20 0	24 0	24 0	28 0	28 0	20 0	90 0	12 0	12 0	12 0	12 0
Hoshiarpur . . . . .	20 0	17 0	24 0	22 0	12 0	12 0	23 0	23 0	14 0	14 0	14 0	14 0	14 0	14 0	12 0	12 0	20 0	20 0	24 0	23 0	10 0	100 0	13 0	13 0	13 0	13 0
Gudaspur . . . . .	18 0	17 0	24 0	22 0	11 0	11 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	21 0	20 0	24 0	24 0	25 0	24 0	10 0	120 0	13 0	13 0	13 0	13 0
Amritsar . . . . .	19 0	19 0	28 0	25 0	11 0	11 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	21 0	20 0	24 0	24 0	25 0	24 0	10 0	90 0	13 0	13 0	13 0	13 0
<i>Hills—</i>																										
Simla . . . . .	13 0	14 0	18 0	18 0	9 0	9 0	16 0	16 0	14 0	14 0	14 0	14 0	17 0	17 0	8 0	8 0	18 0	18 0	19 0	19 0	10 0	65 0	9 0	9 0	9 0	9 0
Kangra . . . . .	13 0	13 0	18 0	18 0	12 0	12 0	13 0	13 0	10 0	10 0	10 0	10 0	24 0	24 0	8 0	8 0	18 0	17 0	18 0	18 0	12 0	100 0	10 0	10 0	10 0	10 0
<i>North-western—</i>																										
Sialkote . . . . .	18 0	18 0	28 0	25 0	13 0	13 0	24 0	24 0	24 0	21 0	21 0	21 0	24 0	24 0	22 0	22 0	24 0	23 0	23 0	21 0	14 0	160 0	13 0	13 0	13 0	13 0
Gujranwala . . . . .	19 0	18 0	26 0	26 0	10 0	10 0	22 0	22 0	16 0	16 0	16 0	16 0	24 0	24 0	10 0	10 0	23 0	22 0	20 0	20 0	14 0	85 0	13 0	13 0	13 0	13 0
Chitral . . . . .	18 0	17 0	27 0	23 0	9 0	9 0	23 0	23 0	21 0	21 0	21 0	21 0	24 0	24 0	12 0	12 0	24 0	23 0	21 0	20 0	11 0	120 0	13 0	13 0	13 0	13 0
Jhelum . . . . .	17 0	18 0	23 0	25 0	8 0	10 0	22 0	22 0	20 0	20 0	20 0	20 0	24 0	24 0	16 0	16 0	23 0	23 0	20 0	20 0	11 0	140 0	14 0	14 0	14 0	14 0
Kawalpindi . . . . .	16 0	16 0	24 0	22 0	12 0	11 0	20 0	20 0	19 0	18 0	18 0	18 0	24 0	24 0	14 0	14 0	17 0	17 0	17 0	17 0	18 0	98 0	13 0	13 0	13 0	13 0
Hazara . . . . .	14 0	13 0	19 0	19 0	10 0	11 0	20 0	20 0	14 0	14 0	14 0	14 0	24 0	24 0	12 0	12 0	17 0	17 0	17 0	17 0	22 0	120 0	11 0	11 0	11 0	11 0
Peshawar . . . . .	15 0	14 0	24 0	22 0	10 0	11 0	24 0	24 0	15 0	15 0	15 0	15 0	24 0	24 0	19 0	19 0	16 0	16 0	21 0	20 0	22 0	100 0	42 0	40 0	40 0	40 0
Kohat . . . . .	13 0	14 0	19 0	20 0	11 0	11 0	18 0	18 0	16 0	16 0	16 0	16 0	24 0	24 0	16 0	16 0	24 0	24 0	18 0	18 0	22 0	125 0	50 0	60 0	60 0	60 0
<i>Western—</i>																										
Shahpur . . . . .	20 0	18 0	25 0	25 0	10 0	10 0	26 0	24 0	22 0	22 0	22 0	22 0	20 0	20 0	18 0	18 0	21 0	21 0	21 0	20 0	10 0	240 0	13 0	13 0	13 0	13 0
Jhang . . . . .	19 0	19 0	30 0	29 0	10 0	10 0	25 0	25 0	20 0	20 0	20 0	20 0	18 0	18 0	20 0	20 0	21 0	21 0	20 0	20 0	10 0	240 0	13 0	13 0	13 0	13 0
Mooltan . . . . .	16 0	15 0	26 0	23 0	11 0	11 0	23 0	23 0	18 0	18 0	18 0	18 0	18 0	18 0	22 0	22 0	18 0	18 0	20 0	19 0	10 0	100 0	13 0	13 0	13 0	13 0
Bannu . . . . .	18 0	17 0	23 0	25 0	8 0	10 0	20 0	20 0	18 0	18 0	18 0	18 0	18 0	18 0	8 0	8 0	20 0	19 0	22 0	21 0	13 0	60 0	40 0	40 0	40 0	40 0
D. I. Khan . . . . .	18 0	16 0	33 0	27 0	12 0	12 0	26 0	25 0	25 0	25 0	25 0	25 0	16 0	16 0	5 0	5 0	20 0	19 0	17 0	16 0	9 0	112 0	43 0	42 0	42 0	42 0
Muzaffargarh . . . . .	18 0	17 0	23 0	23 0	9 0	9 0	23 0	23 0	20 0	20 0	20 0	20 0	16 0	16 0	13 0	13 0	19 0	19 0	17 0	16 0	9 0	110 0	110 0	110 0	110 0	110 0
D. G. Khan . . . . .	18 0	16 0	21 0	21 0	9 0	9 0	23 0	22 0	20 0	20 0	20 0	20 0	16 0	16 0	19 0	19 0	18 0	18 0	17 0	16 0	75 0	75 0	27 0	27 0	27 0	27 0
<b>Sind and Baluchistan—</b>																										
Karachi . . . . .	12 0	12 0	18 0	18 0	10 0	10 0	16 0	16 0	13 0	13 0	13 0	13 0	16 0	16 0	17 0	17 0	16 0	16 0	14 0	14 0	7 0	90 0	14 0	14 0	14 0	14 0
Hyderabad (Gidu Bandar) . . . . .	12 0	11 0	18 0	17 0	9 0	9 0	19 0	18 0	14 0	14 0	14 0	14 0	16 0	16 0	14 0	14 0	16 0	16 0	14 0	14 0	7 0	100 0	14 0	14 0	14 0	14 0
Thar and Parkar (Umarkot) . . . . .	13 0	13 0	18 0	18 0	10 0	10 0	18 0	18 0	12 0	12 0	12 0	12 0	16 0	16 0	14 0	14 0	16 0	16 0	14 0	14 0	11 0	123 0	12 0	12 0	12 0	12 0
Sukkur . . . . .	13 0	13 0	20 0	18 0	8 0	8 0	20 0	20 0	18 0	18 0	18 0	18 0	16 0	16 0	18 0	18 0	16 0	16 0	14 0	14 0	11 0	160 0	11 0	11 0	11 0	11 0
Shikarpur . . . . .	13 0	11 0	18 0	17 0	8 0	8 0	20 0	19 0	21 0	21 0	21 0	21 0	16 0	16 0	15 0	15 0	20 0	19 0	17 0	16 0	9 0	110 0	110 0	110 0	110 0	110 0
Upper Sind Frontier . . . . .	13 0	12 0	17 0	16 0	10 0	10 0	24 0	24 0	20 0	20 0	20 0	20 0	16 0	16 0	15 0	15 0	16 0	16 0	14 0	14 0	10 0	160 0	11 0	11 0	11 0	11 0
Quetta . . . . .	12 0	12 0	13 0	14 0	7 0	7 0	16 0	15 0	10 0	10 0	10 0	10 0	16 0	16 0	12 0	12 0	12 0	12 0	15 0	14 0	10 0	64 0	9 0	9 0	9 0	9 0

[illegible]

Firewood is sold by head-loads, cart loads, and bullock-loads, &c.

**K. Not procurable.**

Not sold.

**\* Not produced.**



## RETAIL PRICES FOR THE 2ND HALF OF FEBRUARY 1889—concluded.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM ( <i>Sorghum vulgare</i> ).		BAIRA OR CUMRU ( <i>Pennisetum typhoides</i> ).		MARUA OR RAGI ( <i>Eleusine indica</i> ).		KANKRI OR KAKRI, ITALIAN MILLET ( <i>Setaria italica</i> ).		GRAM, CHENNA, CHOLA, KADAIY, OR SENSAGA ( <i>Cicer arietinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARRAR OR THER P.A. ( <i>Citrus indicus</i> ).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
Madras—	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
Malabar Coast—																										
Malabar . . . . .	8 10	8 10	...	...	12 3	12 10	13 0	13 10	...	...	...	...	20 6	21 13	...	...	...	...	...	...	...	...	136 2	128 13	11 11	13 5
S. Canara . . . . .	8 2	8 2	...	...	12 10	12 10	13 10	13 10	...	...	...	...	21 13	21 13	...	...	...	...	...	...	...	...	128 13	128 13	13 5	13 5
South, central—																										
Coimbatore . . . . .	12 8	10 11	...	...	13 0	13 0	14 0	14 0	21 11	21 11	22 5	22 5	26 3	26 3	...	...	...	...	...	...	...	...	133 10	161 13	11 11	11 11
Nilgiris . . . . .	9 14	9 14	...	...	9 10	10 6	11 3	11 3	20 0	19 5	16 13	15 6	30 3	19 6	...	...	...	...	...	...	...	...	161 13	161 13	10 2	10 2
Salem . . . . .	10 3	10 3	...	...	12 11	13 2	14 2	14 2	24 10	24 10	22 2	22 2	30 13	30 13	...	...	...	...	...	...	...	...	186 10	186 10	13 8	13 8
Central—																										
Belary . . . . .	13 6	13 0	...	...	12 13	12 5	14 0	14 10	27 13	28 13	20 11	20 11	34 14	36 14	...	...	...	...	...	...	...	...	97 3	97 3	11 14	11 14
Anantapur . . . . .	14 8	11 8	...	...	13 6	13 6	14 0	14 0	31 6	31 6	25 6	25 6	34 0	34 0	...	...	...	...	...	...	...	...	155 8	155 8	11 5	11 5
Gudalajah . . . . .	14 0	14 0	...	...	12 6	12 6	14 0	14 14	25 5	25 5	24 11	24 11	33 0	33 0	...	...	...	...	...	...	...	...	140 0	140 0	12 10	12 10
Kurnool . . . . .	11 6	11 6	...	...	11 6	11 6	12 3	12 3	23 0	21 14	20 0	20 0	...	...	...	...	...	...	...	...	...	...	142 14	142 14	11 11	11 11
East Coast, north—																										
Tanjam . . . . .	10 0	10 0	...	...	9 8	9 8	10 0	10 0	...	...	...	...	17 8	17 0	...	...	...	...	...	...	...	...	194 6	194 6	12 0	12 0
Vizagapatam . . . . .	13 0	13 0	...	...	9 0	9 0	10 3	10 3	20 8	20 8	19 13	19 13	19 3	19 3	...	...	...	...	...	...	...	...	116 10	116 10	11 11	11 11
Godavari . . . . .	10 13	8 2	...	...	14 6	14 14	15 8	16 0	24 0	25 0	22 14	24 10	21 13	23 11	...	...	...	...	...	...	...	...	243 0	243 0	12 0	12 0
East Coast, central—																										
Kistna . . . . .	10 6	9 6	...	...	13 11	13 11	14 0	14 0	22 2	22 2	...	...	23 13	23 13	...	...	...	...	...	...	...	...	170 2	170 2	13 3	13 3
Nellore . . . . .	9 14	9 14	...	...	12 14	12 14	14 0	14 0	23 0	23 0	21 13	21 13	26 6	26 6	...	...	...	...	...	...	...	...	93 5	93 5	11 11	11 11
East Coast, south—																										
Madras . . . . .	10 10	10 10	...	...	11 10	11 10	13 6	13 6	...	...	...	...	26 6	26 0	...	...	...	...	...	...	...	...	89 14	89 14	12 5	12 5
Chingleput . . . . .	9 6	9 6	...	...	12 8	13 8	15 6	15 2	...	...	21 13	21 2	26 0	25 5	...	...	...	...	...	...	...	...	136 2	136 2	12 6	12 6
N. Arcot . . . . .	7 13	8 10	...	...	12 3	12 3	14 2	13 3	...	...	24 10	26 3	34 3	34 3	...	...	...	...	...	...	...	...	194 6	194 6	11 5	11 5
S. Arcot . . . . .	8 2	8 2	...	...	15 13	15 13	14 14	14 14	...	...	26 2	26 2	20 6	21 11	...	...	...	...	...	...	...	...	209 0	209 0	10 13	10 13
Tanjore . . . . .	8 10	8 10	...	...	12 3	12 3	13 2	13 2	...	...	21 10	20 5	25 0	26 3	...	...	...	...	...	...	...	...	166 3	166 3	12 14	12 14
Techinopoly . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143 6	143 6	13 0	13 0
Southern—																										
Tinnevely . . . . .	8 14	8 14	...	...	12 11	13 2	13 3	13 10	...	...	...	...	27 14	27 14	...	...	...	...	...	...	...	...	53 5	53 5	14 13	14 13
Madura . . . . .	11 14	10 2	...	...	13 14	12 10	14 6	13 8	22 11	24 5	22 2	23 8	...	...	...	...	...	...	...	...	...	...	131 3	131 3	13 10	13 10
Myore—																										
Mysore . . . . .	11 0	11 0	10 0	10 0	11 0	11 0	12 0	12 0	30 0	30 0	30 0	20 0	29 0	29 0	...	...	12 0	12 0	...	...	...	...	96 0	96 0	8 4	8 4
Bangalore . . . . .	10 8	10 8	11 0	11 0	9 8	9 8	10 8	10 8	24 0	24 0	...	...	30 0	30 0	...	...	11 8	11 8	...	...	...	...	96 0	96 0	9 8	9 8
Kolar . . . . .	10 0	10 0	9 0	9 0	10 0	10 0	12 0	12 0	26 0	26 0	...	...	43 0	43 0	...	...	11 0	11 0	...	...	...	...	144 0	144 0	9 4	9 4
Tumkur . . . . .	11 0	11 0	10 12	10 12	11 8	11 8	13 0	13 0	...	...	...	...	44 0	44 0	...	...	12 0	12 0	...	...	...	...	340 0	340 0	9 0	9 0
Hassan . . . . .	...	...	11 0	11 0	13 0	13 0	15 0	15 0	...	...	...	...	42 0	42 0	...	...	14 0	14 0	...	...	...	...	96 0	96 0	9 0	9 0
Kudur . . . . .	10 0	10 0	11 0	11 0	15 0	15 0	17 0	17 0	...	...	...	...	48 0	48 0	...	...	13 0	13 0	...	...	...	...	320 0	320 0	9 0	9 0
Shimoga . . . . .	12 10	12 10	...	...	11 9	12 10	15 12	16 13	29 6	37 13	...	...	48 5	46 5	...	...	14 11	14 11	...	...	...	...	480 0	480 0	10 8	10 8
Chitaldrug . . . . .	13 0	14 0	15 0	15 0	11 0	11 0	13 0	13 0	50 0	48 0	32 0	32 0	60 0	55 0	...	...	14 0	14 0	...	...	...	...	320 0	320 0	9 0	9 0
Coorg—																										
Coorg . . . . .	10 0	9 0	9 0	9 0	13 8	13 0	17 0	16 0	...	...	...	...	35 0	33 0	...	...	24 0	24 0	...	...	...	...	110 0	110 0	11 0	10 8
Aden . . . . .	8 0	8 0	...	...	6 3	6 3	8 0	8 0	10 3	10 3	9 4	9 4	...	...	...	...	9 4	9 4	...	...	...	...	65 5	65 5	32 0	32 0

• Not sold.

DEPARTMENT OF FINANCE AND COMMERCE,  
(Statistical Branch).E. J. SINKINSON,  
Off. Secretary to the Government of India.

GOVERNMENT OF INDIA.

REVENUE AND AGRICULTURAL DEPARTMENT.

Weekly Report on the State of the Season and prospects of the Crops.

**Madras.**—*For week ending 10th April, 1889.*—No rain in Ganjam, Godavari, Nellore, Madras, Chingleput, South Arcot, and South Canara; fair in the Nilgiris; and slight elsewhere. Standing crops generally good; but suffering from want of rain in Ganjam, Vizagapatam, Bellary, North Arcot, Trichinopoly, Tinnevely, and Coimbatore. Wet crops withering in parts of Cuddapah, Anantapur, and Chingleput. Pasture deficient in Ganjam, Vizagapatam, Cuddapah, Bellary, North Arcot, Madura, Tinnevely, Coimbatore, Nilgiris, Salem, and Malabar. Prices falling in Ganjam, Vizagapatam, and seven other districts; rising in eight; and stationary in others. General prospects favourable, except in Ganjam; improving in Coimbatore. Labourers employed last day of week—Rushikulya works, 12,747; Gopalpore Canal, 7,979; Taptapani road, 408.

**Bombay.**—*For week ending 10th April, 1889.*—Slight rain in parts of Ratnagiri. Late crops in one taluka of Sholapur unsatisfactory. Exotic cotton in parts of Dharwar blighted. Opium in Baroda good. Harvesting of late crops and ploughing for next season's crops progressing. Probable outturn of late crops in Hyderabad 12 annas. Fodder scarce in Khandeish and parts of Karachi, Poona, Ahmednagar, Dharwar, Kathiawar, and Baroda.

**Bengal.**—*For week ending 9th April, 1889.*—Showers reported in a few places in East Bengal, in Midnapur, and Calcutta; elsewhere the province has been without rain. Rain is generally much wanted for spring rice and other standing crops, and for the cultivation of autumn rice and jute. The *rabi* harvest is nearly finished, and the outturn, as estimated in some districts, is between 10 and 12 annas, in Pubna and Furreedpore about 8 annas, and in the Chota Nagpur districts from 6 to 12 annas. No estimate of the *rabi* outturn has yet been received from the Behar districts. Opium weighments are still proceeding in Durbhanga, Mozufferpore, Sarun, and Chumparun. Young indigo is suffering from caterpillars in Bhagulpore, the Sonthal Pergunnahs, and Hazaribagh. A good *mahwa* crop has been secured, but in Manbhoom and the Palamow subdivision the outturn is about eight annas only. No marked fluctuation in the price of rice during the week, though in some districts an upward tendency is observed. The latest report regarding the distressed tract in the Patna division shows that the general condition of the people is unchanged, and that the increased pressure experienced in two localities of the Madhubani subdivisions has been relieved by the opening of special relief works.

**North-Western Provinces and Oudh.**—*For week ending 10th April, 1889.*—Weather getting hot. Barley crops all harvested. Threshing operations in progress. A fair outturn expected. Opium collection completed. Markets well stocked, but prices are fluctuating. The condition of cattle is good, except in Gonda and Kumaun.

**Punjab.**—*For week ending 10th April, 1889.*—Rain has fallen in Rawalpindi, Dera Ismail Khan, and Peshawar. Prices rising in Delhi, falling in Rawalpindi and Shahpur; stationary elsewhere. Sowings of cotton and sugarcane and ploughing for other *kharif* crops in progress. Harvesting of *rabi* crops commenced in certain districts. Prospects of *rabi* crops are generally good; damage done to crops *nil*. Stock cattle are healthy. Fodder sufficient, except in Sadr station, Lahore. Poppy reaping commenced in Jullundur.

**Central Provinces.**—*For week ending 10th April, 1889.*—Weather hot and cloudy. Threshing of winter crops continues. Outturn of wheat in

Jubbulpore 8 to 10, Hoshangabad 6, Nagpur 8, and Bilaspur 9 annas. Water-supply deficient in places.

**Burma.**—*For week ending 6th April, 1889.*—Slight rainfall in Toungoo. The price of paddy remained stationary in most districts; there was a fall in the price in Prome and Toungoo, and a rise in Amherst, Shwegyin, Shwebo, and the Upper Chindwin.

**Assam.**—*For week ending 10th April, 1889.*—Weather warm. Slight rain in most districts. Sowing of early rice continues. Preparation of land for late rice commenced. Prospects of tea good.

**Mysore and Coorg.**—*For week ending 10th April, 1889.*—Slight rain in parts of Mysore. Crops in good condition, except in parts of Kolar, where there is a scarcity of water. Prospects of season favourable. Prices slightly fallen in Shimoga and risen in Kolar.

Good showers have fallen in two *nads* in South Coorg, but not elsewhere. Rain much needed.

**Berar and Hyderabad.**—*For week ending 10th April, 1889.*—Threshing of *rabi* crops completed in some places. Ploughing commenced in some districts. Prospects generally good. Cattle healthy. Fodder insufficient in Amraoti and Buldana districts. Water-supply ample, except in Buldana district. Prices high in the Akola and Buldana districts.

Slight rain in Hyderabad during the week. *Rabi* and hot-weather crops continue to be harvested. Tanks drying. Scarcity of fodder still felt. Prices stationary.

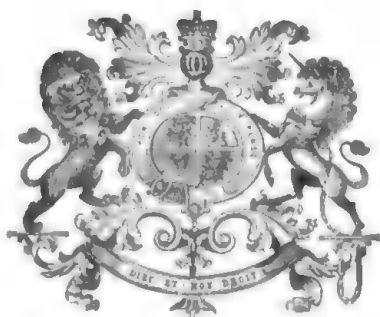
**Central India.**—*For week ending 10th April, 1889.*—No material change in crops or weather since last report.

**Rajputana.**—*For week ending 10th April, 1889.*—Outturn of harvests, average in Kotah, Harrowti, Ajmere, Jeypore, and Ulwar; below average in Marwar, Kherwara, and Jhallawar. Agricultural stock good. Pasturage or fodder sufficient, except in Marwar, Kherwara, and Meywar. Prices steady generally.

**Nepal.**—*For week ending 4th April, 1889.*—No rain during the week. Weather seasonable. Prospects of wheat and potato harvest good. Land being prepared for Indian corn.

E. C. BUCK,

*Secretary to the Government of India.*



SUPPLEMENT TO  
**The Gazette of India.**

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No. 16.} CALCUTTA, SATURDAY, APRIL 20, 1889.

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**OFFICIAL PAPERS.**

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

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GOVERNMENT OF INDIA.  
DEPARTMENT OF FINANCE AND COMMERCE.

*Comparative Statement of the Net Indian Sea and Land Customs Revenue (excluding Salt Revenue) for the twelve months of the official year 1888-89, and of the  
seventeen preceding years.  
(IN THOUSANDS OF RUPEES.)*

YEAR.	BENGAL.			BOMBAY.			SINDH.			MADRAS.			BURMA.			TOTAL BRITISH INDIA.			YEAR.
	On Imports of Liquors.	On other Imports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Revenue.	
1871-72	10,52	70,95	24,61	1,06,11	4,66	59,73	1,10	1,35	2,44	4,89	3,74	12,57	14,31	30,62	1,82	4,60	25,83	30,25	1871-72
1872-73	11,95	68,43	27,16	1,07,54	3,79	55,74	1,07	1,22	2,62	4,31	4,01	12,55	12,25	28,81	3,01	5,30	35,44	43,75	1872-73
1873-74	11,23	65,09	21,19	97,51	4,34	62,74	1,30	1,00	1,40	3,70	3,79	14,02	15,20	33,01	3,40	5,49	30,74	39,63	1873-74
1874-75	12,10	76,05	19,42	1,07,57	5,44	64,95	1,22	1,00	1,72	3,94	3,76	13,22	14,22	31,20	3,86	6,80	26,36	36,92	1874-75
1875-76	12,71	72,96	20,94	1,06,61	4,43	62,89	1,37	1,02	1,20	3,59	4,81	13,44	11,79	30,04	3,77	5,16	34,03	43,26	1875-76
1876-77	13,32	66,58	21,52	1,01,42	1,29	53,80	1,49	75	38	2,62	5,55	11,83	6,55	23,93	4,24	5,81	31,29	41,44	1876-77
1877-78	14,28	80,86	21,02	1,16,16	1,51	59,65	1,87	89	48	3,24	6,00	10,13	2,81	18,94	4,03	6,76	39,32	41,01	1877-78
1878-79	13,40	61,09	20,78	97,36	2,53	55,58	1,96	59	36	2,91	5,40	9,30	5,14	19,84	6,96	7,21	33,16	47,33	1878-79
1879-80	12,47	59,45	15,48	87,40	2,57	52,57	3,46	75	38	4,59	5,02	9,17	8,43	22,62	8,31	7,40	37,24	52,05	1879-80
1880-81	13,23	59,23	17,27	89,73	2,81	67,72	5,04	1,25	26	6,55	5,21	10,43	8,34	23,98	5,37	8,74	42,90	57,01	1880-81
1881-82	13,55	47,66	19,41	80,62	2,06	57,72	4,01	1,24	51	5,76	5,01	9,20	4,99	19,20	7,53	7,69	47,88	63,10	1881-82
1882-83	14,31	17	20,11	34,59	2,02	11,55	3,42	5	62	4,09	5,44	8	4,37	9,89	8,18	8	54,44	62,70	1882-83
1883-84	14,44	45	18,71	33,60	1,81	13,33	3,66	5	60	4,31	4,89	10	6,07	11,06	8,11	13	43,44	51,68	1883-84
1884-85	12,59	34	15,40	28,33	2,16	13,77	4,02	6	65	4,73	4,84	4	4,08	9,56	7,57	7	34,68	45,42	1884-85
1885-86	13,32	23	17,19	31,04	1,59	14,23	4,36	8	97	5,41	5,03	12	3,55	9,00	6,56	8	49,09	56,13	1885-86
1886-87	14,24	38	13,40	30,02	1,95	14,98	5,38	12	100	6,50	6,87	15	5,16	12,18	9,79	17	40,75	56,84	1886-87
1887-88	13,39	1,03	6,55	34,97	2,37	18,18	5,18	8	84	6,10	10,13	17	3,84	15,14	9,08	28	45,89	55,25	1887-88
1888-89	14,76	6,30	6,24	37,30	1,93	21,35	5,31	75	56	6,62	10,43	86	5,39	16,68	8,96	99	38,61	45,56	1888-89

\* The amount refunded is greater than the duty collected.

DEPARTMENT OF FINANCE AND COMMERCE,  
STATISTICAL BRANCH;  
Calcutta, 16th April, 1889.

E. J. SINKINSON,

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and Prospects of the Crops.

**Madras.**—*For week ending 13th April, 1889.*—No rain in Godavari, Kistna, Nellore, Cuddapah, Bellary, Anantapur, Kurnool, Madras, and South Canara; very slight in Ganjam and Vizagapatam; fair in Travancore; and slight elsewhere. Standing crops generally good; but suffering from want of rain in Ganjam, Vizagapatam, and parts of Bellary, North Arcot, South Arcot, Tinnevely, and Coimbatore. Wet crops withering in parts of Cuddapah, Anantapur, and Chingleput. Pasture deficient in Ganjam, Vizagapatam, Cuddapah, Bellary, North Arcot, Madura, Tinnevely, Coimbatore, Nilgiris, Salem, and Malabar. Prices almost stationary in Ganjam and seven other districts; falling in five and rising elsewhere. General prospects favourable, except in Ganjam; improving in Coimbatore. Labourers employed on last day of week—on Rushikulya works, 7,056, and on Gopalpore Canal, 4,575. Decrease due to prevalence of cholera.

**Bombay.**—*For week ending 17th April, 1889.*—Rain throughout Sind and in parts of Belgaum. Late crops in one taluka of Sholapur unsatisfactory and in parts of Shikarpur damaged by storms. Exotic cotton in parts of Dharwar blighted. Harvesting of late crops and preparations for next season's crops progressing. Probable outturn of wheat in Upper Sind Frontier fourteen annas. Fodder scarce in Khandeish and Nasik and in parts of Karachi, Poona, Ahmednagar, Dharwar, Kathiawar, and Baroda.

**Bengal.**—*For week ending 16th April, 1889.*—Pretty general rain reported in South-West and East Bengal, Chota Nagpur, and Orissa; very little rain fell in North Bengal; and none in Behar, with the exception of a few showers in the Sonthal Parganas, where much good was done; but more moisture is wanted for the standing crops and for the cultivation of lands for the autumn rice and jute sowing. The *rabi* harvest is closing; and in Behar outturn is estimated at from ten to twelve annas, and eight annas in the affected areas of Durbhanga and Muzaffarpur. Opium weighments are almost finished. *Mahua* outturn is from twelve to sixteen annas in Bhagulpore, the Sonthal Parganas, and Hazaribagh, and eight annas in Manbhum and Palamow. Lac gathering has begun in Chota Nagpur; and the outturn is eight annas in Manbhum and only four annas in Singhbhum.

**North-Western Provinces and Oudh.**—*For week ending 17th April, 1889.*—Weather hot. Crops nearly harvested. Fair outturn expected. Markets well supplied. Prices fluctuating. Condition of cattle on the whole good.

**Punjab.**—*For week ending 17th April, 1889.*—Rain has fallen in nine out of thirteen districts and hail in six villages of Peshawar. Prices rising in Delhi, Mooltan, and Peshawar; falling in Rawalpindi and Shahpur; and stationary in others. Harvesting of *rabi* crops commenced. Ploughing for *kharif* in progress. Weeding of cotton and sugarcane going on. Prospects of standing crops good. Crops in a few villages of Tank tahsil have been injured by hail. Stock cattle are reported healthy. Fodder sufficient, except in Sadr station, Lahore. Poppy harvesting commenced in Amritsar. Outturn average in Jullundur.

**Central Provinces.**—*For week ending 17th April, 1889.*—Weather, cloudy and hot. Slight rain in Raipur and Sambalpur. Threshing of wheat nearly completed, estimated outturn, Saugor 10, Hoshangabad 6, Nagpur 8, and Bilaspur 9 annas. Water-supply deficient, except in northern districts.

**Burma.**—*For week ending 13th April, 1889.*—Slight rain fell in Toungoo, Bhamo, Myadoun, and Yeu. The price of paddy has risen in Pegu, Bassein, Thongwa, Henzada, and Mergui in Upper Burma; prices remain stationary, except in the Upper and Lower Chindwin, where a rise is noticeable. In Upper Burma dry weather crops in Bhamo and Myadoun want rain. Food-supply is sufficient.

**Assam.**—*For week ending 17th April, 1889.*—Weather warm. Moderate rain in all districts, except Garo and Khasi Hills. Sowing of summer rice and preparation of land for late rice continue. Tea prospects good.

**Mysore and Coorg.**—*For week ending 17th April, 1889.*—No rain in Mysore. Crops in parts of the Kolar districts are suffering from want of water. Elsewhere they are reported to be in good condition. Prospects generally favourable. Water-supply diminishing in parts of the Mysore and Kolar districts. No material change in prices.

Rain wanted for coffee blossoms in Coorg.

**Berar and Hyderabad.**—*For week ending 17th April, 1889.*—Fields are being prepared for ensuing *kharif* crops in Berar. *Rabi* prospects favourable. Agricultural stock generally good. Fodder and water scarce. Prices high in some districts.

No rain during the week in Hyderabad. *Rabi* and hot weather crops continue to be harvested. Scarcity of fodder felt almost everywhere. Prices stationary.

**Central India.**—*For week ending 17th April, 1889.*—No material change in crops or weather since last report. Crops slightly damaged at Baoni in Bundelkhand by hail. Prices rising at Neemuch.

**Rajputana.**—*For week ending 17th April, 1889.*—Some rain in Shahpura and slight in eight of the other States. Standing crops harvested. Agricultural stock good. Prices rising in Meywar, Kotah, Kishengurh, and Bhurt-pore. Opium fair in Jeypore.

**Nepal.**—*For week ending 11th April, 1889.*—Slight rain. Weather hot; mornings and evenings cool. Thunderstorm occurred on afternoon of 6th. Outturn of wheat expected fair.

E. C. BUCK,

Secretary to the Government of India.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. L OF 1888-89.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	length Total mean open.	RECEIPTS FOR WEEK ENDING 17TH MARCH, 1888.		length Total mean open.	RECEIPTS FOR WEEK ENDING 10TH MARCH, 1889.		TOTAL RECEIPTS FROM 1ST APRIL, 1887, TO 17TH MARCH, 1888.		TOTAL RECEIPTS FROM 1ST APRIL, 1888, TO 16TH MARCH, 1889.		Total increase in 1888-89.	Total decrease in 1888-89.	
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.			
	State Lines worked by Companies.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
6th April, 1889	East Indian	1,514	9,11,732	602	1,514	9,21,491	609	4,45,02,741	588	4,26,60,002	564	...	18,35,839	
30th March, 1889	Rajputana-Malwa (a).	1,664	3,80,053	228	1,664	4,38,000	263	1,02,02,793	194	1,80,33,712	217	18,30,919	...	
6th April, 1889	Patna-Gya.	57	10,773	188	57	11,076	194	5,00,003	175	4,63,360	162	...	37,243	
30th March, 1889	Bengal-Nagpur (b)	186	27,551	148	293	43,805	150	13,54,020	145	17,13,779	163	3,59,759	...	
6th April, 1889	Dildarnagar-Ghazipur	12	807	75	12	911	76	46,394	77	42,836	71	...	3,558	
30th March, 1889	Mysore	140	9,808	71	210	12,907	59	4,02,994	71	5,48,168	76	55,174	...	
30th ditto	Southern Mahratta (c)	850	75,465	89	857	74,772	87	31,49,383	80	37,23,260	87	5,73,886	...	
30th ditto	Indian Midland (d)	211	(e) 20,407	125	588	67,457	115	(c) 6,84,030	106	(f) 13,78,069	101	6,94,039	...	
30th ditto	Vilupuram-Dhar in a- veram (Nellore Branch)	33	4,309	53	83	5,742	60	(g) 90,833	41	2,43,820	50	1,52,987	...	
23rd ditto	Bareilly-Pilibhit.	30	1,491	41	30	2,182	61	85,593	49	89,719	51	4,126	...	
30th ditto	Lucknow-Sitapur	105	7,141	68	105	6,600	63	2,09,329	40	2,55,311	40	45,082	...	
	TOTAL	4,858	14,55,827	300	5,428	15,84,943	292	6,73,18,713	286	6,91,58,145	270	18,40,232	...	
	State Lines worked by Government.													
30th March, 1889	North-Western (h)	2,481	5,60,553	226	2,481	5,12,880	215	2,05,61,710	182	2,44,79,588	203	39,17,878	...	
30th ditto	Oudh and Rohilkhand	693	1,00,952	245	693	1,37,704	199	66,05,891	191	65,00,864	188	...	96,027	
30th ditto	Wardha Coal	45	23,129	514	45	22,064	504	7,32,730	324	8,36,702	372	1,03,972	...	
30th ditto	Bengal Central	128	12,589	101	128	14,800	117	6,47,792	104	6,88,903	110	41,111	...	
30th ditto	Eastern Bengal Rail- ways (j)	645	1,47,619	220	673	1,60,800	252	93,18,739	380	1,02,46,570	304	9,27,831	...	
6th April, 1889	Nalhati	27	2,124	78	27	1,031	71	91,113	68	97,693	73	6,580	...	
6th ditto	Tirhoot	259	30,047	153	273	31,920	117	17,51,757	142	15,92,240	122	...	1,59,517	
30th March, 1889	Burma	333	74,039	222	553	1,10,377	200	31,40,493	189	32,34,270	150	88,783	...	
30th ditto	Jorhat	31	507	18	31	842	27	47,445	34	58,440	40	10,995	...	
23rd ditto	Cherra-Companyganj.	7	137	18	7	80	7	10,505	28	8,771	22	...	2,494	
	TOTAL	4,646	10,30,356	222	4,812	10,02,773	208	4,29,08,235	193	4,77,47,317	203	48,30,112	...	
	Lines worked by Guar- anteed Companies.													
30th March, 1889	Madras	840	1,63,413	13	840	1,84,925	220	79,04,454	187	80,60,806	192	1,56,352	...	
30th ditto	South Indian	654	89,435	37	654	1,07,903	163	48,87,682	149	52,59,553	161	3,62,871	...	
30th ditto	Great Indian Peninsula	1,304	8,44,420	502	1,447	8,86,657	613	3,77,20,934	500	3,99,57,934	537	22,37,000	...	
30th ditto	Bombay, Baroda and Central India	401	2,77,263	601	401	2,64,000	573	1,17,18,032	505	1,23,20,276	535	6,02,244	...	
	TOTAL	3,450	13,74,531	307	3,402	14,43,545	424	6,22,31,102	358	6,55,84,500	380	33,58,467	...	
GRAND TOTAL (GUARANTEED AND STATE)			12,963	38,60,714	298	13,642	40,31,261	290	17,24,58,050	273	18,24,95,861	880	1,00,37,811	...
GROSS ESTIMATED EXPENSES			...	...	...	...	...	8,80,07,898	139	9,36,07,814	144	55,79,910	...	
NET RECEIPTS			...	...	...	...	...	8,43,60,152	134	8,87,98,047	136	44,37,895	...	
	Assisted Companies.													
6th April, 1889	Bengal and North- Western	376	41,262	110	376	34,670	92	19,60,706	104	21,09,394	112	1,48,408	...	
6th ditto	Tarakeshwar	22	5,395	242	22	6,050	272	2,58,016	232	2,05,803	239	7,787	...	
23rd March, 1889	Rohilkhand-Kumaun	67	4,820	72	67	9,709	145	3,01,200	92	3,27,558	100	26,268	...	
23rd ditto	Dibru-Sadiya	78	8,899	114	78	8,830	113	3,95,103	101	4,19,543	108	24,440	...	
	TOTAL	543	60,376	111	543	59,259	109	26,15,005	107	31,23,198	115	2,06,993	...	
	Native States.													
30th March, 1889	The Nizam's (Guaran- teed Company)	277	28,091	101	354	40,235	114	15,60,214	139	18,08,454	119	2,48,240	...	
30th ditto	The Gaekwar's	59	2,977	51	59	2,880	49	1,49,928	51	1,35,809	46	...	14,119	
30th ditto	The Gaekwar's Meh- sana-Vadnagar	21	1,244	50	27	1,000	37	37,941	36	44,512	39	6,571	...	
30th ditto	Bhavnagar-Gondal	193	32,101	167	260	35,691	137	10,00,807	103	11,19,838	107	1,19,031	...	
30th ditto	Porbandar	68	3,093	45	68	2,478	36	1,32,617	39	1,56,480	46	23,863	...	
30th ditto	Jodhpore	124	10,154	82	124	8,200	66	3,43,155	55	3,38,522	55	...	4,633	
	TOTAL	742	77,750	105	892	90,484	101	32,24,062	93	36,03,615	91	3,78,953	...	

- (a) Includes the Cawnpore-Achnera State Railway.  
(b) Includes the Katni-Umaria State Railway.  
(c) Includes the Bellary-Kistna State Railway.  
(d) Includes the Sindia and Bhopal-Itarsi Railways.  
(e) Includes the receipts of the Sindia Railway only.

(f) Includes the receipts of the Sindia Railway from 1st April, 1888, to 31st February, 1889, and those of the Bhopal-Itarsi Railway from 1st January, 1889.

- (g) Total receipts from 15th September, 1887, to 17th March, 1888.  
(h) Includes the Amritsar-Pathankot and Rajpura-Patiala State Railways.  
(j) Includes the Northern Bengal, Dacca, Kaunia-Dharia and Assam-Bihar State Railways.



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GOVERNMENT OF INDIA.  
DEPARTMENT OF FINANCE AND COMMERCE.

## RETAIL PRICES FOR THE 1st HALF OF MARCH 1889.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

[illegible]





## RETAIL PRICES FOR THE 1st HALF OF MARCH 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU ( <i>Sorghum vulgare</i> ).		BAJRA OR CUMBU ( <i>Pennisetum typhoides</i> ).		MARUA OR RAOI ( <i>Hemistia indica</i> ).		KARONI OR KARUN, ITALIAN MILLET ( <i>Seteria italica</i> ).		GRAM, CHENNA, CHOLA, KADALAY OR SINAGA ( <i>Cicer arctinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARHAR OR THUR CADIAN PEA ( <i>Cajanus indicus</i> ).		PINEWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
<b>Bengal—continued.</b>																										
<i>Behar, south—</i>																										
Monghyr . . . . .	15 12	26 4	15 12	13 12	15 8	16 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8	30 8	31 8	32 8	33 8	34 8
Gya . . . . .	15 8	21 0	15 8	11 0	15 0	16 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0	33 0	34 0
Patna . . . . .	18 0	22 0	18 0	11 0	15 0	16 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0	33 0	34 0
Shahabad . . . . .	14 8	25 0	14 8	9 0	15 0	16 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0	33 0	34 0
<i>Behar, north—</i>																										
Purneah . . . . .	13 0	11 0	13 0	15 0	16 0	18 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0	33 0	34 0
Bhagalpur . . . . .	15 12	15 2	15 12	13 14	15 2	15 2	15 2	15 2	16 2	17 2	18 2	19 2	20 2	21 2	22 2	23 2	24 2	25 2	26 2	27 2	28 2	29 2	30 2	31 2	32 2	33 2
Durbhanga . . . . .	14 4	16 8	14 4	10 0	14 4	15 8	14 4	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8	30 8	31 8	32 8	33 8
Muzafferpore . . . . .	13 0	12 0	13 0	8 0	13 0	14 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
Saran . . . . .	16 0	15 0	16 0	8 12	14 4	14 10	14 4	14 10	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
Champaran . . . . .	13 0	13 0	13 0	7 0	13 0	13 0	13 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0
<b>N.-W. Provinces—</b>																										
<i>Eastern—</i>																										
Mirzapur . . . . .	14 8	20 0	14 8	8 0	14 8	15 8	14 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8	30 8	31 8	32 8	33 8
Benares . . . . .	14 14	18 7	14 14	9 3	13 9	14 12	13 9	14 12	15 6	16 12	17 12	18 12	19 12	20 12	21 12	22 12	23 12	24 12	25 12	26 12	27 12	28 12	29 12	30 12	31 12	32 12
Ghazipur . . . . .	16 1	15 7	16 1	7 1	12 14	13 12	12 14	13 12	14 6	15 12	16 12	17 12	18 12	19 12	20 12	21 12	22 12	23 12	24 12	25 12	26 12	27 12	28 12	29 12	30 12	31 12
Jaunpur . . . . .	15 0	14 8	15 0	7 0	14 0	14 0	14 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
Allahabad . . . . .	18 0	20 0	18 0	8 0	12 0	12 0	12 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0
<i>Central—</i>																										
Banda . . . . .	18 0	23 0	18 0	8 0	12 0	12 0	12 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0
Fatehpur . . . . .	17 12	21 4	17 12	12 0	12 12	12 12	12 12	12 12	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0
Hampur . . . . .	19 8	24 2	19 8	9 0	12 0	12 0	12 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0
Jaun . . . . .	20 0	20 0	20 0	9 0	10 0	10 0	10 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0
Cannore . . . . .	20 0	23 8	20 0	9 0	10 0	10 0	10 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0
Etawah . . . . .	18 14	23 8	18 14	7 0	10 8	11 8	10 8	11 8	12 8	13 8	14 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8
Farrukhabad . . . . .	17 4	22 12	17 4	6 8	10 8	10 8	10 8	10 8	11 8	12 8	13 8	14 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8
Mainpuri . . . . .	18 12	21 12	18 12	5 0	14 0	14 0	14 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
Etah . . . . .	19 8	29 0	19 8	7 8	14 0	14 0	14 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
<i>Western—</i>																										
Lalitpur . . . . .	17 4	20 0	17 4	8 0	11 8	11 8	11 8	11 8	12 8	13 8	14 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8
Jhansi . . . . .	17 5	19 7	17 5	7 8	11 15	11 15	11 15	11 15	12 15	13 15	14 15	15 15	16 15	17 15	18 15	19 15	20 15	21 15	22 15	23 15	24 15	25 15	26 15	27 15	28 15	29 15
Agra . . . . .	17 0	22 8	17 0	5 0	9 0	9 0	9 0	9 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0
Muttra . . . . .	17 0	22 0	17 0	5 0	9 0	9 0	9 0	9 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0
Aligarh . . . . .	19 0	26 0	19 0	6 0	11 8	11 8	11 8	11 8	12 8	13 8	14 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8
Bhandahar . . . . .	19 4	28 0	19 4	6 0	10 0	10 0	10 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0
Meerut . . . . .	18 0	26 0	18 0	6 0	10 0	10 0	10 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0
<i>Sub-montane—</i>																										
Balia . . . . .	16 0	19 4	16 0	10 8	16 0	16 0	16 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0	33 0	34 0
Azamgarh . . . . .	14 12	18 10	14 12	10 5	13 4	13 8	13 4	13 8	14 8	15 8	16 8	17 8	18 8	19 8	20 8	21 8	22 8	23 8	24 8	25 8	26 8	27 8	28 8	29 8	30 8	31 8
Gorakhpur . . . . .	14 6	18 0	14 6	9 0	12 9	12 9	12 9	12 9	13 9	14 9	15 9	16 9	17 9	18 9	19 9	20 9	21 9	22 9	23 9	24 9	25 9	26 9	27 9	28 9	29 9	30 9
Basti . . . . .	16 8	20 0	16 8	8 8	14 0	14 0	14 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
Shahjahanpur . . . . .	20 0	28 8	20 0	8 8	14 0	14 0	14 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0	29 0	30 0	31 0	32 0
Hydrabad . . . . .	18 4	24 0	18 4	6 0	10 0	10 0	10 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0	26 0	27 0	28 0
Pilibhut . . . . .	17 4	23 0	17 4	12 8	13 12	13 12	13 12	13 12	14 12	15 12	16 12	17 12	18 12	19 12	20 12	21 12	22 12	23 12	24 12	25 12	26 12	27 12	28 12	29 12	30 12	31 12

[illegible]

v In sub-divisions retail prices of salt per rupee are :—Reguratal 9·4 sers and Jammi 9 sers.  
w In Buxar and Sasaram sub-divisions retail prices of salt 10 sers per rupee.  
x At Kashengunge retail price of salt 10 sers per rupee.

† For unhushed grain.  
‡ Six pies per bundle.  
y In sub-divisions retail prices of salt per rupee are :—Madhubani 10 sers and Tajpore 10·8 sers.  
z At Hajipore and Sitamarhi retail price of salt 10 sers per rupee.  
a! At Bettiah retail price of salt 9·8 sers per rupee.

RETAIL PRICES FOR THE 1st HALF OF MARCH 1935--continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU (Sorghum vulgare).		BAJRA OR CUMBU (Pennisetum typhalorum).		MARUA OR BAJI (Eleusine coracana).		KANKI OR KAKU, ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA (Cicer arislinum).		MAIZE (Zea Mays).		ARHAR OR THUR CADIAN PEA (Cajanus indicus).		FIREWOOD.		SALT.		
	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	
<b>Punjab—</b>																											
<b>Southern—</b>																											
Hissar	20 0	18 0	27 0	24 0	10 0	10 0	25 0	23 0	21 0	20 0	21 0	22 0	21 0	22 0	16 0	16 0	26 0	24 0	18 0	18 0	11 0	11 0	85 0	85 0	11 8	11 8	
Ferozepore	20 0	18 0	27 0	24 0	10 0	10 0	25 0	23 0	21 0	20 0	21 0	22 0	21 0	22 0	16 0	16 0	26 0	24 0	18 0	18 0	11 0	11 0	100 0	100 0	13 0	13 0	
Montgomery	19 0	18 0	27 0	24 0	9 0	9 0	24 0	22 0	18 0	18 0	15 0	15 0	21 0	22 0	20 0	20 0	25 0	21 0	22 0	20 0	12 0	12 0	200 0	200 0	11 0	11 0	
<b>Central—</b>																											
Gurgaon	20 0	19 0	28 0	26 0	11 0	9 0	26 0	25 0	23 0	23 0	23 0	23 0	23 0	23 0	20 0	20 0	20 0	19 0	20 0	18 0	16 0	16 0	130 0	130 0	11 0	11 0	
Delhi	19 0	17 0	28 0	24 0	11 0	12 0	25 0	23 0	21 0	19 0	19 0	19 0	23 0	23 0	14 0	12 0	28 0	25 0	25 0	22 0	22 0	22 0	80 0	80 0	11 0	12 0	
Rohak	20 0	17 0	22 0	20 0	11 0	12 0	26 0	24 0	24 0	21 0	24 0	21 0	22 0	22 0	15 0	15 0	30 0	26 0	16 0	13 0	20 0	20 0	120 0	120 0	11 0	12 0	
Karnal	20 0	18 0	29 0	25 0	12 0	11 0	27 0	27 0	18 0	18 0	18 0	18 0	22 0	22 0	18 0	17 0	32 0	28 0	30 0	24 0	20 0	19 0	130 0	130 0	10 0	10 0	
Lahore	18 0	17 0	29 0	27 0	7 0	9 0	27 0	27 0	18 0	18 0	18 0	18 0	22 0	22 0	20 0	20 0	25 0	25 0	23 0	24 0	12 0	12 0	95 0	95 0	12 0	12 0	
<b>Sub-montane—</b>																											
Umballa	23 0	20 0	30 0	26 0	12 0	12 0	29 0	25 0	16 0	17 0	16 0	17 0	20 0	20 0	10 0	10 0	30 0	27 0	30 0	26 0	19 0	20 0	140 0	140 0	12 0	12 0	
Ludhiana	24 0	21 0	32 0	30 0	12 0	12 0	30 0	29 0	20 0	20 0	20 0	23 0	20 0	20 0	20 0	20 0	30 0	28 0	32 0	30 0	14 0	14 0	110 0	110 0	12 8	12 8	
Jullundur	22 0	20 0	28 0	28 0	8 0	8 0	30 0	28 0	20 0	20 0	16 0	16 0	20 0	20 0	26 0	26 0	26 0	24 0	27 0	26 0	18 0	20 0	100 0	90 0	13 0	12 8	
Floshampur	23 0	20 0	30 0	28 0	10 0	12 0	30 0	26 0	22 0	20 0	20 0	20 0	16 0	14 0	22 0	22 0	20 0	20 0					120 0	100 0	13 0	13 0	
Gurdaspur	18 0	16 0	24 0	24 0	12 0	12 0	23 0	23 0	14 0	14 0	14 0	14 0	22 0	22 0	12 0	12 0	20 0	20 0	24 0	24 0	10 0	10 0	120 0	120 0	13 0	13 0	
Amritsar	21 0	19 0	28 0	28 0	11 0	11 0	24 0	24 0	19 0	19 0	19 0	19 0	22 0	22 0	21 0	21 0	26 0	24 0	25 0	25 0	23 0	23 0	90 0	90 0	13 0	13 0	
<b>Hills—</b>																											
Simla	14 0	13 0	17 0	16 0	9 0	9 0	16 0	16 0	14 0	14 0	14 0	14 0	17 0	17 0	8 0	8 0	17 0	18 0	20 0	19 0	10 0	10 0	65 0	65 0	9 0	9 0	
Kangra	13 0	13 0	17 0	16 0	12 0	12 0	12 0	12 0	10 0	10 0	10 0	10 0	24 0	24 0	8 0	8 0	19 0	18 0	20 0	18 0	12 0	12 0	100 0	100 0	10 0	10 0	
<b>North-western—</b>																											
Sialkote	19 0	18 0	30 0	28 0	12 0	13 0	27 0	24 0	24 0	24 0	24 0	24 0	24 0	24 0	22 0	22 0	25 0	24 0	22 0	23 0	13 0	14 0	160 0	160 0	13 0	13 0	
Gujranwala	21 0	19 0	30 0	26 0	10 0	10 0	22 0	22 0	16 0	16 0	16 0	16 0	21 0	21 0	12 0	12 0	24 0	23 0	20 0	21 0	20 0	20 0	85 0	85 0	13 0	13 0	
Ghulat	20 0	18 0	23 0	27 0	9 0	9 0	25 0	23 0	23 0	23 0	21 0	21 0	20 0	20 0	12 0	12 0	22 0	24 0	23 0	20 0	20 0	20 0	120 0	120 0	13 0	13 0	
Jhelum	20 0	17 0	26 0	23 0	9 0	8 0	26 0	25 0	20 0	20 0	20 0	20 0	20 0	20 0	10 0	10 0	22 0	23 0	22 0	20 0	20 0	11 0	160 0	140 0	14 0	14 0	
Rawalpindi	16 0	16 0	24 0	24 0	11 0	12 0	21 0	20 0	20 0	19 0	19 0	19 0	20 0	20 0	16 0	16 0	22 0	23 0	21 0	20 0	18 0	18 0	100 0	98 0	13 8	13 12	
Peshawar	16 0	14 0	19 0	19 0	10 0	11 0	24 0	24 0	15 0	14 0	14 0	14 0	14 0	14 0	12 0	12 0	19 0	17 0	17 0	17 0	23 0	23 0	100 0	100 0	11 0	11 0	
Kohat	16 0	15 0	29 0	24 0	12 0	10 0	24 0	24 0	18 0	15 0	15 0	15 0	15 0	15 0	18 0	18 0	21 0	19 0	22 0	21 0	23 0	22 0	125 0	125 0	41 0	42 0	
<b>Western—</b>																											
Shahpur	20 0	20 0	30 0	25 0	10 0	10 0	25 0	25 0	24 0	22 0	22 0	22 0	16 0	16 0	20 0	18 0	26 0	23 0	31 0	31 0	21 0	21 0	240 0	240 0	13 0	13 0	
Jhang	21 0	19 0	33 0	30 0	10 0	10 0	26 0	25 0	20 0	20 0	20 0	20 0	16 0	16 0	20 0	20 0	18 0	18 0	30 0	30 0	20 0	20 0	240 0	240 0	13 0	12 0	
Multan	17 0	16 0	28 0	26 0	9 0	11 0	23 0	23 0	20 0	18 0	18 0	18 0	8 0	8 0	24 0	24 0	20 0	19 0	22 0	20 0	10 0	10 0	100 0	100 0	13 0	13 0	
Bahawalpur	18 0	18 0	25 0	23 0	10 0	10 0	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	8 0	8 0	21 0	20 0	24 0	22 0	13 0	12 0	60 0	60 0	40 0	40 0	
D. I. Khan	21 0	18 0	43 0	33 0	13 0	8 0	26 0	26 0	17 0	25 0	25 0	25 0	16 0	16 0	6 0	5 0	22 0	20 0	17 0	17 0	17 0	9 0	112 0	112 0	45 0	43 0	
Muzaffargarh	19 0	18 0	25 0	23 0	13 0	12 0	20 0	20 0	20 0	17 0	20 0	18 0	14 0	13 0	14 0	13 0	21 0	19 0	22 0	21 0	23 0	22 0	110 0	110 0	12 0	12 0	
D. G. Khan	18 0	18 0	25 0	21 0	9 0	9 0	23 0	23 0	20 0	20 0	20 0	20 0	20 0	20 0	21 0	21 0	21 0	19 0	21 0	18 0	18 0	75 0	75 0	27 0	27 0	27 0	27 0
<b>Sind and Baluchistan—</b>																											
Karachi	13 0	12 0	18 0	18 0	8 0	7 8	16 0	16 0	14 0	13 8	13 8	13 8	16 0	16 0	17 0	17 0	17 0	17 0	14 0	14 0	7 0	7 0	90 0	90 0	14 0	14 0	
Hydrabad (Gudu Bandar)	13 0	12 0	18 0	18 0	8 0	7 8	16 0	16 0	14 0	13 8	13 8	13 8	16 0	16 0	17 0	17 0	17 0	17 0	14 0	14 0	7 0	7 0	90 0	90 0	14 0	14 0	
Thar and Parkar (Umar Kot)	13 0	13 0	18 0	18 0	8 0	7 8	16 0	16 0	14 0	13 8	13 8	13 8	16 0	16 0	17 0	17 0	17 0	17 0	14 0	14 0	7 0	7 0	90 0	90 0	14 0	14 0	
Sukkur	14 0	13 8	21 0	20 8	10 0	9 8	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	14 0	14 0	14 0	14 0	18 0	18 0	13 0	13 0	160 0	160 0	11 8	11 8	
Shikarpur	14 0	13 8	21 0	20 8	10 0	9 8	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	14 0	14 0	14 0	14 0	18 0	18 0	13 0	13 0	160 0	160 0	11 8	11 8	
Khairpur	14 0	13 8	21 0	20 8	10 0	9 8	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	14 0	14 0	14 0	14 0	18 0	18 0	13 0	13 0	160 0	160 0	11 8	11 8	
Thatta	14 0	13 8	21 0	20 8	10 0	9 8	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	14 0	14 0	14 0	14 0	18 0	18 0	13 0	13 0	160 0	160 0	11 8	11 8	
Sindh Frontier	14 0	13 8	21 0	20 8	10 0	9 8	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	14 0	14 0	14 0	14 0	18 0	18 0	13 0	13 0	160 0	160 0	11 8	11 8	
Quetta	14 0	13 8	21 0	20 8	10 0	9 8	23 0	23 0	20 0	20 0	20 0	20 0	18 0	18 0	14 0	14 0	14 0	14 0	18 0	18 0	13 0	13 0	160 0	160 0	11 8	11 8	





## RETAIL PRICES FOR THE 1st HALF OF MARCH 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM (Sorghum vulgare).		BAJRA OR CUMBU (Pennisetum hybridum).		MARUA OR BARI (Eleusine coracana).		KANGNI OR KAKUM, ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA (Cicer arctinum).		MAIZE (Zea Mays).		ARHAR OR THUR CADIAN PEA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.
<b>Madras—</b>																										
Malabar Coast—																										
Malabar . . . . .	8 10	8 10	...	...	12 3	12 3	13 0	13 0	...	...	...	...	20 6	20 6	...	...	...	...	...	...	...	...	136 2	136 2	11 11	11 11
S. Canara . . . . .	8 8	8 2	...	...	12 10	12 10	13 10	13 10	...	...	...	...	21 13	21 13	...	...	...	...	...	...	...	...	138 13	138 13	13 5	13 5
<b>South, central—</b>																										
Coimbatore . . . . .	11 8	11 8	...	...	13 0	13 0	14 0	14 0	21 11	21 11	23 14	22 5	26 3	26 3	...	...	...	...	...	...	...	...	133 10	133 10	11 11	11 11
Nilgiris . . . . .	10 11	9 14	...	...	9 10	9 10	11 3	11 3	20 0	20 0	16 13	16 13	20 3	20 3	...	...	...	...	...	...	...	...	161 13	161 13	10 2	10 2
Salem . . . . .	10 3	10 3	...	...	12 3	12 11	13 11	14 2	25 0	24 10	22 2	22 2	30 13	30 13	...	...	...	...	...	...	...	...	186 10	186 10	13 8	13 8
<b>Central—</b>																										
Bellary . . . . .	13 6	13 6	...	...	12 13	12 13	14 0	14 0	28 13	27 13	21 10	20 11	34 14	34 14	...	...	...	...	...	...	...	...	97 3	97 3	11 14	11 14
Anantapur . . . . .	11 8	11 8	...	...	13 6	13 6	14 0	14 0	31 6	31 6	25 6	25 6	33 0	34 0	...	...	...	...	...	...	...	...	155 8	155 8	11 5	11 5
Cuddapah . . . . .	14 0	14 0	...	...	12 0	12 6	14 0	14 0	22 2	22 2	27 10	24 11	31 8	33 0	...	...	...	...	...	...	...	...	140 0	140 0	12 10	12 10
Kuruk . . . . .	11 6	11 6	...	...	11 6	11 6	12 3	12 3	24 5	23 0	20 0	20 0	...	...	...	...	...	...	...	...	...	...	142 14	142 14	11 11	11 11
<b>East Coast, north—</b>																										
Ganjam . . . . .	10 0	10 0	...	...	9 8	9 8	10 0	10 0	...	...	...	...	18 0	18 0	...	...	...	...	...	...	...	...	194 6	194 6	12 0	12 0
Vizagapatam . . . . .	12 0	13 0	...	...	9 0	9 0	10 3	10 3	20 8	20 8	19 13	19 13	19 3	19 3	...	...	...	...	...	...	...	...	116 10	116 10	11 11	11 11
Godavari . . . . .	10 13	10 13	...	...	13 14	14 6	15 0	15 8	21 2	24 0	19 6	22 14	20 0	21 13	...	...	...	...	...	...	...	...	243 0	243 0	12 0	12 0
<b>East Coast, central—</b>																										
Kistna . . . . .	10 6	10 6	...	...	13 11	13 11	14 5	13 14	22 2	22 2	...	...	23 13	23 13	...	...	...	...	...	...	...	...	170 2	170 2	13 3	13 3
Nellore . . . . .	9 14	9 14	...	...	12 14	12 14	14 0	14 0	23 0	23 0	21 13	21 13	26 0	26 0	...	...	...	...	...	...	...	...	93 5	93 5	11 11	11 11
<b>East Coast, south—</b>																										
Madras . . . . .	10 10	10 10	...	...	11 10	11 10	13 6	13 6	...	...	...	...	27 11	26 6	...	...	...	...	...	...	...	...	89 14	89 14	12 5	12 5
Chingleput . . . . .	...	...	...	...	13 8	12 8	15 2	15 6	...	...	21 2	21 13	26 0	26 0	...	...	...	...	...	...	...	...	122 8	122 8	12 6	12 6
N. Arcot . . . . .	9 6	9 6	...	...	12 3	12 3	13 8	14 2	...	...	24 10	24 10	25 3	26 3	...	...	...	...	...	...	...	...	194 6	194 6	11 5	11 5
S. Arcot . . . . .	7 13	7 13	...	...	12 3	12 3	13 13	14 14	...	...	23 14	26 2	27 3	29 0	...	...	...	...	...	...	...	...	209 0	209 0	10 13	10 13
Tanjore . . . . .	8 2	8 2	...	...	15 13	15 13	16 6	16 6	...	...	20 5	21 10	23 10	25 0	...	...	...	...	...	...	...	...	166 3	166 3	12 14	12 14
Tiruchinopoly . . . . .	8 10	8 10	...	...	12 10	12 3	13 6	13 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143 6	143 6	12 3	12 3
<b>Southern—</b>																										
Tinnevely . . . . .	8 14	8 14	...	...	13 2	12 11	13 10	13 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53 5	53 5	14 13	14 13
Madura . . . . .	11 14	11 14	...	...	13 14	13 14	14 6	14 6	22 11	22 11	22 2	22 2	27 14	27 14	...	...	...	...	...	...	...	...	136 8	136 8	13 10	13 10
<b>Mysore—</b>																										
Bysore . . . . .	10 0	11 0	10 8	10 0	10 0	10 0	12 8	12 0	30 0	30 0	29 0	30 0	30 0	29 0	...	...	23 0	12 0	...	...	...	...	108 0	108 0	9 0	9 0
Bangalore . . . . .	10 8	10 8	11 8	11 0	9 8	9 8	11 8	10 8	24 0	24 0	...	...	34 0	30 0	...	...	13 0	11 8	...	...	...	...	96 0	96 0	9 8	9 8
Kolar . . . . .	10 0	10 0	10 0	10 0	10 4	10 4	12 8	12 8	26 0	26 0	...	...	43 0	43 0	...	...	10 0	11 0	...	...	...	...	144 0	144 0	9 0	9 0
Tumkur . . . . .	11 0	11 0	11 0	11 0	12 0	11 8	13 0	13 0	...	...	...	...	44 0	44 0	...	...	12 0	12 0	...	...	...	...	340 0	340 0	9 0	9 0
Hasan . . . . .	...	...	11 0	11 0	13 0	13 0	15 0	15 0	...	...	...	...	42 0	42 0	...	...	14 0	14 0	...	...	...	...	96 0	96 0	9 0	9 0
Kadur . . . . .	10 0	10 0	11 0	11 0	16 0	15 0	18 0	17 0	...	...	...	...	48 0	48 0	...	...	18 0	13 0	...	...	...	...	320 0	320 0	9 0	9 0
Shimoga . . . . .	12 10	12 10	...	...	12 10	11 9	15 12	15 12	31 8	29 6	...	...	44 1	48 5	...	...	16 13	16 13	...	...	...	...	480 0	480 0	9 7	10 8
Chitaldrug . . . . .	13 0	13 0	15 0	15 0	11 0	11 0	14 0	13 0	48 0	50 0	32 0	32 0	55 0	60 0	...	...	22 0	22 0	...	...	...	...	320 0	320 0	9 0	9 0
<b>Coorg—</b>																										
Coorg . . . . .	9 0	10 0	8 0	9 0	13 8	13 8	16 8	17 0	...	...	...	...	35 8	35 0	...	...	23 0	24 0	...	...	...	...	110 0	110 0	10 8	11 0
<b>Aden . . . . .</b>	8 0	8 0	...	...	6 3	6 3	8 0	8 0	10 3	10 3	9 4	9 4	...	...	...	...	9 4	9 4	...	...	...	...	65 5	65 5	32 0	32 0

\* Not sold.

DEPARTMENT OF FINANCE AND COMMERCE,  
(Statistical Branch).E. J. SINKINSON,  
Offg. Secretary to the Government of India.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## WEATHER SUMMARY FOR MARCH 1889.

The month of March usually witnesses the commencement of the hot weather in Central and Northern India. The cold weather rarely lasts later than the middle of March on the Gangetic Plain. Hence it is a month of large change of meteorological conditions, mainly caused by rapid increase of temperature. The distribution of pressure changes considerably. Pressure decreases in the whole Indian area,—most rapidly in Northern India, and least in the Bay of Bengal and Southern India. The area of minimum pressure is usually transferred to the Eastern districts of the Central Provinces and Chutia Nagpur, which determines and accompanies an imperfect cyclonic circulation of the air over that and the adjacent districts.

The atmospheric disturbances of the month of March are usually of a different character from those of the preceding two months. The latter are usually due to the appearance of depressions in Upper India which drift eastwards and always give cloud, and frequently light to moderate rain to the districts near and on the north of the depression. In March the atmospheric disturbances are much more local in character and are chiefly due to the contrasts of conditions produced by the rapidly increasing temperature of the interior. The interaction of land and sea currents and of air motion between the plains and hills give rise to the various classes of storms comprised under the term hot weather storms, which include the nor-wester of Bengal, the thunderstorms and hailstorms of the Gangetic Plain and the adjacent hill districts, and the duststorms of Central and Upper India. Their cause is by no means yet fully understood, nor have the conditions of their occurrence been determined. The month of March is hence a transition month between cold weather and hot weather conditions in Northern India. It is usually a dry month, and the rainfall, which usually occurs, is sometimes due to storms similar to those of the cold weather and sometimes to local series of thunderstorms in the hot weather storms. In at least two cases out of three, when February has been wetter than usual, March is an unusually dry month and characterized by excessive temperature and unusually rapid increase of temperature.

The past month has been an example of a very dry March following an abnormally wet February.

The following gives a brief account of the more important depressions and large atmospheric disturbances of the month.

A shallow depression lay over Sind on the 7th, on which day temperature was 5° above the normal in the Central Provinces. The depression passed rapidly across the head of the Peninsula, and gave rain chiefly as thunder showers in some parts of the Central Provinces, North-Western Provinces, Bengal, and Behar. It filled up on the 3rd, and the barometer was very high in Upper India for three or four days afterwards. A very shallow depression formed

or appeared in Sind on 13th, but it disappeared on the next day without giving rain. Immediately before this, temperature was excessive in North-Western India. Thus in Sind and Rajputana the mean temperature of the 10th was  $7^{\circ}$  above the normal of the day, of the Punjab  $5^{\circ}$ , and of Guzerat and Central India  $4^{\circ}$ . Another depression appeared in Sind on the 13th and 14th, which was preceded by excessive temperature, *vis.* :

Punjab  $9^{\circ}$  above average.

Sind and Rajputana  $8\frac{1}{2}^{\circ}$  above average.

Guzerat and Central India  $5\frac{1}{2}^{\circ}$  above average : and

North-Western Provinces  $5^{\circ}$  above average.

It apparently passed across the head of the Peninsula and gave some thunder showers, chiefly in Bengal, Assam, and Burmah.

Another similar disturbance appeared in Sind on the 17th. It gave thunder-storm showers on that day in parts of the Punjab, North-Western Provinces, and Rajputana, and even caused a brief rapid reduction of temperature. Almost immediately afterwards, a depression formed in North Bengal and Behar and the adjacent hill districts. It gave rise to very strong south-westerly winds in South Bengal, and to much cloud, rain, and disturbed weather in the hills. Numerous duststorms occurred in Behar on the 20th, and some thunderstorms in Bengal and Assam on the 21st and 22nd.

After a brief period of rapid increase of temperature lasting until the 25th, a depression again formed in North Bengal under similar conditions to the preceding. It gave few showers, chiefly in Assam, and probably storms in the adjacent hills, and passed away on the 28th, after which ordinary weather prevailed until the end of the month.

*Pressure.*—The preceding discussion has hence shown that the month was unusually free from large disturbances. The chief feature was the excessive pressure which prevailed and which accompanied, contrary to the usual rule, increased temperature. The mean pressure for the month was  $0.51''$  above the normal. The excess was greatest at the hill stations, thus showing that the unusual pressure conditions were probably due chiefly to abnormal conditions of the higher strata.

The relative anomalies were smaller than during the previous month. Pressure was relatively in slight defect in Northern India, and in slight excess in the Deccan. In the preceding month the excess in the Deccan was very prominent, but the change initiated by the hot weather conditions of March has already diminished this excess considerably, and hence it will probably pass away entirely during the present hot weather, and conditions more favourable to a strong Bombay monsoon current be established than have obtained during the past two years.

*Temperature.*—Owing to the absence of any large disturbances during the month the sky was unusually free from cloud, and hence the mean temperature of the month was everywhere above the normal. The greatest excess of temperature was in Sind and Rajputana ( $+1.9^{\circ}$ ), but this was closely approached by Bengal and Assam with an excess of  $1.8^{\circ}$ , and by the Punjab, the Central Provinces

and Berars with an excess of  $1.7^{\circ}$  each. On the whole, the excess of the mean minimum temperature was greater than that of the mean maximum.

*Rainfall.*—No rain fell throughout the month in the Berars, Khandeish, Guzerat, or the Konkan, and in several other divisions, as will be seen in the following table, the total rainfall of the month was quite insignificant. There was a trifling excess in Rajputana, Sind, and Cutch, but both the actual and the average rainfall for March in those Provinces is very small, and the slight excess reported is unimportant.

The following table shows the actual average rainfall and the normal rainfall of the month of the twenty-one districts into which the country is divided, so far as it is indicated by the telegraphic reports of a few stations in each district :

Districts.	Number of stations.	Normal average rainfall in March.	Actual average rainfall in March 1889.	Difference from the average in March 1889.
Punjab, West	7	1.49	0.60	—0.89
" East	4	1.18	0.33	—0.85
North-Western Provinces, Trans-Gangetic	7	0.85	0.07	—0.78
" " Cis-Gangetic	3	0.26	0.08	—0.18
Behar	2	0.53	0.53	0
North Bengal	3	1.11	0.17	—0.94
Assam—Cachar	3	5.58	3.75	—1.83
Lower Bengal and Chutia Nagpur	8	1.98	0.49	—1.49
Orissa—North Circars	5	0.73	0.01	—0.72
Central Provinces, South	7	0.35	0.10	—0.25
Berar—Khandeish	2	0.33	0	—0.33
Rajputana, Central India, Saugor, and Nerbudda.	9	0.12	0.22	+0.10
Sind—Cutch	3	0.15	0.34	+0.19
Guzerat	3	0.02	0	—0.02
Konkan	4	0	0	0
Deccan—Hyderabad	5	0.28	0.11	—0.17
Malabar	5	0.65	0.22	—0.43
Mysore—Bellary	4	0.98	0.95	—0.03
Carnatic	6	0.36	0.10	—0.26
Lower Burma	7	0.13	0.19	+0.06
Ceylon	1	4.91	1.67	—3.24

W. L. DALLAS,

SIMLA, 17th April, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and prospects of the Crops.

**Madras.**—*For week ending 20th April, 1889.*—Rainfall slight in Ganjam, Vizagapatam, Madura, Tinnevely, Coimbatore, Nilgiris, Salem and Malabar; none elsewhere. Standing crops generally good, but suffering from want of rain in Ganjam, Vizagapatam, Chingleput, North Arcot, Trichinopoly and Tinnevely; wet crops withering in parts of Cuddapah, Anantapur and Coimbatore. Pasture deficient in Ganjam, Vizagapatam, Cuddapah, Bellary, Kurnool, North Arcot, Madura, Tinnevely and Coimbatore. No great fluctuations in prices; prices of rice and ragi falling in Ganjam. General prospects favourable, except in Ganjam; improving in Coimbatore. Labourers employed on last day of week—on Rushikulya works, 5,618; on Gopalpore Canal, 2,570; decrease due to outbreak of cholera, on Taptapani road, 482.

**Bombay.**—*For week ending 24th April, 1889.*—Rain has fallen in parts of Upper Sind Frontier, Sholapur, Belgaum, and Dharwar. Late crops in one taluka of Sholapur unsatisfactory. Cotton in parts of Dharwar blighted. Harvesting of late crops and preparations for next season's crops progressing. Probable outturn of late crops in Thana seven annas on average, and of cotton in Belgaum nine annas. Fodder scarce in Khandesh, and in parts of Karachi, Nasik, Poona, Ahmednagar, Sholapur, Dharwar, Kathiawar, and Baroda.

**Bengal.**—*For week ending 23rd April, 1889.*—Rain in East Bengal and parts of Central Bengal during the week has much benefited the standing crops and the cultivation of the autumn crops. More rain is generally wanted throughout the Province. Spring rice, *cheena*, indigo, and sugarcane are still doing fairly well, but the prospects of *cheena* are unsatisfactory in Muzaffarpur and Champaran, here but a small yield is expected. The *rabi* harvest is practically over, and the general outturn is from 10 to 12 annas in the majority of districts, while in the Chota Nagpur districts and in Bankura, Pubna, and Faridpur it is about 8 annas. The result of the opium weighments as far as carried out shows that the actual outturn will be about 40 per cent. approximately below the estimate. The latest report from the Patna division shows that there is a noticeable tendency to rise in the prices of food-grains, but that there is no marked increase in pressure anywhere.

**North-Western Provinces and Oudh.**—*For week ending 24th April, 1889.*—No rain. Weather very hot. *Rabi* harvest nearly completed. Markets full. Prices on the whole steady. Condition of cattle satisfactory.

**Punjab.**—*For week ending 24th April, 1889.*—No rain, except a slight fall in the Rawalpindi and Peshawar districts. Prices rising in Delhi and Mooltan; falling in Jullundur, Lahore, Rawalpindi, Shahpur, and Peshawar; stationary elsewhere. Harvesting of *rabi* crops going on, also weeding of cotton and sugarcane. Ploughings for other *kharif* crops in progress. Prospects of *rabi* crops good. Crops of six villages in Peshawar tahsil have suffered somewhat from hail. Fodder sufficient, except in Sadr station, Lahore. Opium produce small in Rawalpindi.

**Central Provinces.**—*For week ending 24th April, 1889.*—Weather cloudy and rather stormy. Threshing and winnowing in progress. Wheat outturn expected in Saugor 12, Hoshungabad 6, Nagpur 8, and Bilaspur 9 annas. Water scarce, except in northern districts.

**Burma.**—*For week ending 20th April, 1889.*—Slight rain fell in Toungoo, Tavoy, Bhamo, Shwebo, Yamethin, and Pynmana. In Lower Burma there was

a slight rise in the price of paddy in Rangoon, Tharrawaddy, Prome, and Tavoy and a fall in Henzada. In Upper Burma prices remained much the same, except in the Upper and Lower Chindwin, where a fall in the price is noticeable. Food-supply sufficient.

**Assam.**—*For week ending 24th April, 1889.*—Weather seasonable. Sufficient rain in most districts. Sowing of early rice nearly finished. Preparation of lands for late rice continues. Tea doing well.

**Mysore and Coorg.**—*For week ending 24th April, 1889.*—Slight rain reported in one taluka of the Shimoga district. Standing crops in good condition, except in parts of the Tumkur and Kolar districts. Paddy sown and sugarcane planted in parts. Outturn of crops harvested generally favourable. Supply of water diminishing in parts of the Mysore and Kolar districts. Prices slightly risen in the Mysore district.

Showers have fallen in parts of Coorg. The prospects of coffee and cardamom crops have already been affected by the prolonged drought. No pasturage.

**Berar and Hyderabad.**—*For week ending 24th April, 1889.*—Harvesting of *rabi* crops almost completed everywhere. Ploughing operations in progress for preparing fields for next crops. Agricultural stock good. Fodder insufficient, and prices of food-grains high in some districts.

No rain during week at Hyderabad. Harvesting of *rabi* crops concluded, that of hot weather crops continues. Scarcity of fodder and water felt. Prices stationary.

**Central India.**—*For week ending 24th April, 1889.*—Slight rain in Indore and Bhopawar, where weather has been cloudy and hot. Harvest gathered in Bhopal, Bundelkhand, and Baghelkhand. Land being prepared for *khari* sowings in Bhopawar. No other material changes since last report.

**Rajputana.**—*For week ending 24th April, 1889.*—Slight rain in Bikaner. Standing crops gathered in. Outturn of harvests average in some States. Agricultural stock good. Pasturage or fodder sufficient, except in Marwar, Kherwara, Meywar, and parts of Serohi. Prices rising in some States. Opium fair in Ajmere and Jeypore.

**Nepal.**—*For week ending 18th April, 1889.*—Slight rain. Weather cloudy. Harvesting of onion and garlic and wheat crops commenced.

E. C. BUCK,

*Secretary to the Government of India.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

NO. LI OF 1888-89.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

N.B.—As regards figures in column Total Receipts from 1st April, 1887, to 24th March, 1888.														
Latest Return received.	RAILWAYS.	Total length open.	RECEIPTS FOR WEEK ENDING 24TH MARCH, 1888.		Total length open.	RECEIPTS FOR WEEK ENDING 23RD MARCH, 1889.		TOTAL RECEIPTS FROM 1ST APRIL, 1887, TO 24TH MARCH, 1888.		TOTAL RECEIPTS FROM 1ST APRIL, 1888, TO 23RD MARCH, 1889.		Total increase in 1888-89.	Total decrease in 1888-89.	
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.			
State Lines worked by Companies.														
			Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
13th April, 1889	East Indian	1,514	9,51,066	628	1,514	8,35,000	552	4,54,53,807	589	4,35,01,992	563	...	19,51,815	
6th ditto	Rajputana-Malwa (a).	1,664	3,72,165	224	1,664	4,38,000	203	1,05,74,958	194	1,84,89,010	218	19,14,952	...	
13th ditto	Patna-Gya.	57	10,181	175	57	11,326	198	5,10,784	175	4,74,080	163	36,098	...	
13th ditto	Bengal-Nagpur (b).	186	38,987	210	293	46,444	159	13,93,007	140	17,00,223	163	3,67,216	...	
13th ditto	Dildarnagar-Ghazipur	12	760	63	12	817	71	47,154	77	43,003	71	3,461	...	
6th ditto	Mysore	140	11,003	79	219	12,879	59	5,04,302	71	5,60,078	75	56,376	...	
6th ditto	Southern Mahratta (c)	850	63,697	75	817	65,418	77	32,31,426	83	37,00,203	87	5,58,977	...	
6th ditto	Indian Midland (d)	211	(e) 21,702	103	588	57,560	98	(e) 7,05,732	105	(f) 14,30,806	100	7,31,134	...	
6th ditto	Villupuram-Dharmanavaram (Nellore Branch)	83	3,481	42	83	5,726	60	(g) 94,314	41	2,48,750	59	1,54,436	...	
6th ditto	Baroilly-Pilibhit	30	2,633	73	39	1,803	50	88,226	49	91,603	51	2,830	...	
6th ditto	Lucknow-Sitapur-Sihramau	105	4,911	47	105	4,422	42	2,14,240	40	2,59,449	48	45,209	...	
	TOTAL	4,858	14,80,586	305	5,428	14,80,065	273	6,88,17,950	287	7,06,56,815	279	18,38,805	...	
State Lines worked by Government.														
6th April, 1889	North-Western (h)	2,481	6,14,978	248	2,386	4,72,835	198	2,11,76,688	182	2,40,52,423	203	37,75,735	...	
6th ditto	Oudh and Rohilkhand	693	1,50,026	217	692	1,20,290	174	67,56,517	192	60,35,412	188	1,21,105	...	
6th ditto	Wardha Coal	45	19,794	440	45	11,285	251	7,52,524	320	8,17,987	300	95,463	...	
6th ditto	Bengal Central	125	12,400	99	125	14,920	119	6,60,192	203	7,03,823	110	43,631	...	
6th ditto	Eastern Bengal Railways (j)	645	1,44,523	224	673	1,54,930	230	94,63,262	288	1,04,01,500	303	9,38,233	...	
13th ditto	Nalhati	27	2,280	84	27	1,726	63	93,393	60	99,039	73	6,240	...	
13th ditto	Tirhoot	259	43,444	168	273	26,846	98	17,95,181	142	16,17,857	122	1,77,324	...	
30th March, 1889	Burma	333	75,977	228	553	1,10,295	109	32,10,470	189	33,41,708	158	1,20,232	...	
6th April, 1889	Jorhat	31	974	22	31	654	21	48,119	33	59,094	39	1,09,775	...	
30th March, 1889	Cherra-Companyganj.	7	140	19	7	50	7	10,705	28	8,127	81	2,578	...	
	TOTAL	4,646	10,64,816	229	4,812	9,13,837	190	4,30,73,951	194	4,86,67,504	205	46,94,513	...	
Lines worked by Guaranteed Companies.														
6th April, 1889	Madras	840	1,62,674	194	840	1,81,802	216	80,67,128	187	82,54,378	193	1,87,250	...	
6th ditto	South Indian	654	1,00,987	154	654	1,07,873	165	40,88,669	149	53,58,950	161	3,70,181	...	
6th ditto	Great Indian Peninsula	1,504	9,20,760	613	1,447	7,40,342	512	3,80,41,674	502	4,08,45,140	538	22,01,446	...	
6th ditto	Bombay, Baroda and Central India	461	3,14,878	683	461	2,68,000	581	1,20,32,910	509	1,25,99,436	536	5,60,526	...	
	TOTAL	3,459	14,99,299	433	3,402	12,98,017	382	6,37,30,401	359	6,70,00,804	387	33,30,403	...	
GRAND TOTAL (GUARANTEED AND STATE)			12,963	40,44,701	312	13,642	36,91,919	271	17,65,21,402	274	18,63,85,183	280	98,63,781	...
GROSS ESTIMATED EXPENSES			...	...	...	...	...	8,98,12,632	139	9,53,41,052	143	55,20,420	...	
NET RECEIPTS			...	...	...	...	...	8,67,08,770	135	9,10,44,131	137	43,33,361	...	
Assisted Companies.														
13th April, 1889	Bengal and North-Western	376	38,799	103	376	28,030	77	19,99,595	104	21,41,504	112	2,41,009	...	
13th ditto	Tarakshwar	22	5,480	246	22	6,334	285	2,03,496	232	2,72,137	240	8,041	...	
6th ditto	Rohilkhand-Kumaun	67	7,698	115	67	8,190	122	3,08,988	92	3,35,386	100	26,008	...	
23rd March, 1889	Dibru-Sadiya	78	7,754	99	78	7,971	102	4,02,857	101	4,75,514	107	24,057	...	
	TOTAL	543	59,731	110	543	51,435	95	29,74,936	107	31,76,541	115	2,01,605	...	
Native States.														
6th April, 1889	The Nizam's (Guaranteed Company)	277	36,705	133	354	38,017	107	15,96,920	139	18,50,897	120	2,62,977	...	
6th ditto	The Garkwar's	59	3,759	64	59	2,430	41	1,53,687	51	1,38,369	46	...	15,318	
6th ditto	The Garkwar's Mehakana-Vadnagar	21	1,307	62	27	900	33	39,248	36	45,600	39	6,372	...	
13th ditto	Bhavnagar-Gondal	193	34,293	178	260	35,452	136	10,35,100	105	11,55,254	108	1,20,154	...	
6th ditto	Porbandar	68	3,628	53	68	3,553	52	1,30,245	39	1,00,253	46	24,008	...	
6th ditto	Morvi	124	8,112	65	124	7,800	63	3,51,267	55	3,46,109	55	...	5,158	
	TOTAL	742	87,804	118	892	88,152	99	33,12,467	94	37,05,502	92	3,93,935	...	

- (a) Includes the Cawnpore-Achnera State Railway.  
(b) Includes the Katni-Umasia State Railway.  
(c) Includes the Bellary-Kistna State Railway.  
(d) Includes the Sindia and Bhopal-Itarsi Railways.  
(e) Includes the receipts of the Sindia Railway only.

- (f) Includes the receipts of the Sindia Railway from 1st April, 1888, to 28th February, 1889, and those of the Bhopal-Itarsi Railway from 1st January, 1889.  
(g) Total receipts from 15th September, 1887, to 24th March, 1888.  
(h) Includes the Amritsar-Pathankot and Rajpura-Pathana State Railways.  
(j) Includes the Northern Bengal, Dacca, Kaunia-Dharila and Assam-Behar State Railways.

M. C. BRACKENBURY, Major, R.E.,  
Officiating Deputy Secretary.

SIMLA, 25th April, 1889.



SUPPLEMENT TO  
**The Gazette of India.**

No. 18.]

SIMLA, SATURDAY, MAY 4, 1889.

**OFFICIAL PAPERS.**

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor-General will in future be published in PART VI. of the GAZETTE.*

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GOVERNMENT OF INDIA.

REVENUE AND AGRICULTURAL DEPARTMENT.

**Weekly Report on the State of the Season and prospects of the Crops.**

**Madras.**—*For week ending 27th April, 1889.*—No rain at Godavari; good at Madras, Tanjore, Trichinopoly, Madura, Tinnevely, Coimbatore, Nilgiris, Salem, and Malabar; slight elsewhere. Standing crops generally good, but suffering from want of rain in Ganjam, Vizagapatam, Chingleput, North Arcot, and Trichinopoly. Wet crops withering in parts of Cuddapah, Anantapur, Chingleput, and Tinnevely. Pasture deficient in Ganjam, Vizagapatam, and eight other districts. Prices rising in Ganjam, Vizagapatam, and six other districts; falling in five and stationary in others. General prospects favourable, except in Ganjam; much improved in Coimbatore by recent rain. Labourers employed on last day of week—on Rushikulya works, 5,991; Gopalpore Canal, 4,862; and Taptapani Road, 536.

**Bombay.**—*For week ending 1st May, 1889.*—Rain throughout Deccan and Southern Mahratta Country and in parts of Hyderabad, Ahmedabad, Khandesh, and Nasik. Exotic cotton in parts of Dharwar reviving. Harvesting of late crops and preparations for next season's crops progressing generally, and sowing commenced in Karachi. Fodder scarce in Khandesh and in parts of Nasik, Poona, Ahmednagar, Sholapur, Dharwar, and Kathiawar.



**Bengal.**—*For week ending 30th April, 1889.*—Showers reported in East and North Bengal and in a few places in Central Bengal; but no rain elsewhere. General rain is wanted throughout the Province for the standing crops and for the cultivation of the autumn crops. Spring rice has begun to be harvested, but for want of rain the outturn will not be so good as was expected. *Cheena* is doing well in Gya, Shahabad, and Sarun, but its prospects are unfavourable in Darbhanga, Muzaffarpur, and Chumparun, where but a small yield is expected. Sugarcane and indigo are still in fair condition; mulberry is doing fairly well in Midnapore, but in Murshidabad there is scarcely any leaf available for silk rearing; in Maldah an average mulberry crop has been reaped. Mango is generally a very short crop this year, except in Darbhanga, Muzaffarpur, and certain other districts in Behar, where it is plentiful. Prices of all foodgrains, particularly rice, show a marked tendency to rise throughout the Province.

**North-Western Provinces and Oudh.**—*For week ending 1st May, 1889.*—Weather seasonable. Slight rain in a few districts. Threshing of *rabi* crops in progress. Sugarcane and indigo being irrigated. Markets well supplied. Prices generally steady. General condition of agricultural stock is satisfactory.

**Punjab.**—*For week ending 1st May, 1889.*—Slight rain in parts of Hissar, Delhi, and Ferozepore. Prices falling in Rawalpindi; unsettled in Peshawar; stationary elsewhere. *Rabi* crops are being harvested. Ploughings for *kharif* sowings in progress. Cotton being sown in Shahpur and Dera Ismail Khan. Prospects of *rabi* and *kharif* are promising. Stock-cattle reported healthy. Fodder sufficient, except in Sadr station of Lahore. Poppy almost harvested in Amritsar. Opium produce small at Rawalpindi.

**Central Provinces.**—*For week ending 1st May, 1889.*—Rain in all districts, except Chhatnigarh. Threshing continues. Ploughing commencing for autumn crops. Water scarce in most districts. Prices rising in Saugor.

**Burma.**—*For week ending 27th April, 1889.*—Slight rain fell in Prome, Moulmein, Amherst, Toungoo, Tavoy, and Mergui. In Upper Burma rain fell in Bhamo, Myadoun, Lower Chindwin, Meiktila, Yamethin, and Pyinmana. Prices of paddy show a slight rise in Bassein, Thongwa, Henzada, and Moulmein. In Upper Burma there is a rise in prices in Myadoun, Magwe, and Pyinmana, and a fall in Shwebo. In the Bhamo district some of the dry weather crops have been destroyed owing to want of rain.

**Assam.**—*For week ending 1st May, 1889.*—Weather seasonable. Rain sufficient in almost all districts. Condition and prospects of crops good. Tea doing well.

**Mysore and Coorg.**—*For week ending 1st May, 1889.*—Some rain in the civil and military station Bangalore. Rain also reported throughout the Mysore State. Condition of crops good, except in parts of one taluk of Tumkur district, where water is much wanted. Agricultural operations in progress. Prospects generally favourable. No material change in prices.

Good rain has fallen throughout Coorg.

**Berar and Hyderabad.**—*For week ending 1st May, 1889.*—Preparation of land for *kharif* crops in progress in Berar. Agricultural stock generally good. Fodder insufficient in some districts. Prices almost stationary.

No rain during the week in Hyderabad. Reaping of hot-weather crops continues. Scarcity of fodder and water felt almost everywhere. Prices stationary.

**Central India.**—*For week ending 1st May, 1889.*—Slight rain in many parts during the week. Prices of foodgrains stationary in Neemuch; falling in Gwalior, rising in Baghelkhand. Condition of agricultural stock and pasturage in Western Malwa reported indifferent, and below average in Bundelkhand.

**Rajputana.**—*For week ending 1st May, 1889.*—Rainfall good in Meywar and Kotah; slight in Jhallawar. Average outturn of harvests in some States. Agricultural stock good. Prices rising in Meywar. Opium below average in Kotah.

**Nepal.**—*For week ending 25th April, 1889.*—Weather cloudy at times. Midday very hot. Rice is being sown. Sowing of Indian corn delayed for want of rain.

E. C. BUCK,

*Secretary to the Government of India.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. LII OF 1888-89.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total length open.	RECEIPTS FOR WEEK ENDING 31ST MARCH, 1888.		Total length open.	RECEIPTS FOR LAST 8 DAYS ENDING 31ST MARCH, 1889.		TOTAL RECEIPTS FROM 1ST APRIL, 1887, TO 31ST MARCH, 1888.		TOTAL RECEIPTS FROM 1ST APRIL, 1888, TO 31ST MARCH, 1889.		Total increase in 1888-89.	Total decrease in 1888-89.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
20th April, 1889	East Indian	1,514	8,78,615	580	1,514	11,17,679	738	4,63,32,422	589	4,46,97,882	568	...	16,34,540
13th ditto	Rajputana-Malwa (a)	1,664	3,54,087	213	1,664	4,98,286	299	1,69,35,252	195	1,90,85,887	220	21,50,635	...
20th ditto	Patna-Gya	57	8,397	147	57	16,631	292	5,19,181	175	4,96,084	167	...	...
13th ditto	Bengal-Nagpur (b)	186	71,352	383	293	68,481	234	14,04,359	151	18,28,704	164	3,64,345	23,097
20th ditto	Dildarnagar-Ghaziipur	12	840	70	12	1,492	124	47,994	77	45,322	73	...	...
13th ditto	Mysore	140	10,314	74	219	15,382	70	5,14,407	71	5,76,094	75	61,687	2,672
13th ditto	Southern Mahratta (c)	850	72,525	85	857	83,570	98	33,09,115	80	39,41,036	88	6,31,921	...
13th ditto	Indian Midland (d)	211	(e) 21,947	104	388	71,858	122	(e) 7,27,679	106	(f) 15,09,867	100	7,82,188	...
13th ditto	Villupuram-Dharma- voram (Nellore Branch)	83	3,918	47	83	5,345	64	(g) 98,232	42	2,53,605	59	1,55,373	...
13th ditto	Bareilly-Pilibhit	36	2,101	58	36	2,322	64	90,327	49	93,360	50	3,033	...
6th ditto	Lucknow-Sitapur- Sihramau	105	4,054	39	105	8,789	83	2,18,295	40	2,68,580	49	50,285	...
	<b>TOTAL</b>	<b>4,858</b>	<b>14,28,150</b>	<b>294</b>	<b>5,428</b>	<b>18,89,835</b>	<b>348</b>	<b>7,02,57,263</b>	<b>287</b>	<b>7,27,96,421</b>	<b>281</b>	<b>25,39,158</b>	<b>...</b>
	<i>State Lines worked by Government.</i>												
13th April, 1889	North-Western (h)	2,481	4,73,840	191	2,386	6,57,132	275	2,20,80,693	186	2,55,90,638	204	35,09,945	...
6th ditto	Oudh and Rohilkhand	693	1,50,786	218	692	1,07,624	242	69,07,303	193	68,04,866	189	...	1,02,437
13th ditto	Wardha Coal	45	20,747	461	45	28,798	640	7,73,271	329	8,81,167	376	1,07,896	...
13th ditto	Bengal Central	125	12,138	97	125	17,484	140	6,72,330	103	7,22,382	111	50,052	...
13th ditto	Eastern Bengal Rail- ways (j)	645	1,73,272	269	673	2,03,480	302	96,36,534	287	1,06,15,094	303	9,78,560	...
13th ditto	Nalhati	27	1,727	63	27	2,153	80	95,120	68	1,01,912	72	6,792	...
13th ditto	Tirhoot	259	33,822	131	273	40,362	148	18,29,003	142	16,59,593	120	...	1,69,410
6th ditto	Burma	333	80,796	243	353	1,35,363	245	32,97,266	190	34,85,058	160	1,87,702	...
13th ditto	Cherra	31	558	18	31	1,451	47	48,677	33	60,545	38	11,868	...
6th ditto	Cherra-Companyganj	7	133	18	7	45	6	10,838	28	8,172	22	...	2,666
	<b>TOTAL</b>	<b>4,646</b>	<b>9,47,828</b>	<b>204</b>	<b>4,812</b>	<b>12,53,892</b>	<b>261</b>	<b>4,53,51,035</b>	<b>196</b>	<b>4,99,29,427</b>	<b>204</b>	<b>45,78,392</b>	<b>...</b>
	<i>Lines worked by Guar- anteed Companies.</i>												
6th April, 1889	Madras	840	1,85,408	221	840	2,11,671	252	82,52,536	188	84,41,980	193	1,89,444	...
13th ditto	South Indian	654	1,07,089	165	654	1,15,414	176	50,90,658	149	54,75,302	160	3,78,644	...
13th ditto	Great Indian Peninsula	1,504	9,97,995	664	1,447	10,32,281	713	3,96,39,689	505	4,18,79,076	540	22,39,387	...
13th ditto	Bombay, Baroda and Central India	461	3,57,928	776	461	3,25,714	707	1,23,90,838	514	1,29,50,030	539	5,59,192	...
	<b>TOTAL</b>	<b>3,459</b>	<b>16,49,320</b>	<b>477</b>	<b>3,402</b>	<b>16,85,080</b>	<b>495</b>	<b>6,53,79,721</b>	<b>361</b>	<b>6,87,46,388</b>	<b>388</b>	<b>33,66,667</b>	<b>...</b>
	<b>GRAND TOTAL (GUARANTEED AND STATE)</b>	<b>12,963</b>	<b>40,25,298</b>	<b>310</b>	<b>13,642</b>	<b>48,28,807</b>	<b>354</b>	<b>18,09,88,019</b>	<b>275</b>	<b>19,14,72,236</b>	<b>281</b>	<b>1,04,84,217</b>	<b>...</b>
	<b>GROSS ESTIMATED EXPENSES</b>	...	...	...	...	...	...	<b>9,16,97,544</b>	<b>139</b>	<b>9,74,90,332</b>	<b>143</b>	<b>57,92,788</b>	<b>...</b>
	<b>NET RECEIPTS</b>	...	...	...	...	...	...	<b>8,92,90,475</b>	<b>136</b>	<b>9,39,81,904</b>	<b>138</b>	<b>46,91,429</b>	<b>...</b>
	<i>Assisted Companies.</i>												
20th April, 1889	Bengal and North- Western	376	37,096	99	376	44,413	118	20,36,691	104	21,92,423	112	1,55,732	...
20th ditto	Tarakeshwar	22	5,586	251	22	7,174	322	2,69,082	233	2,83,644	245	14,562	...
13th ditto	Rohilkhand-Kumaun	67	8,422	126	67	9,752	146	3,17,410	93	3,45,526	99	28,116	...
30th March, 1889	Dibru-Sadiya	78	7,712	99	78	(h) 9,682	124	4,10,569	101	(i) 4,37,196	108	26,627	...
	<b>TOTAL</b>	<b>543</b>	<b>58,816</b>	<b>108</b>	<b>543</b>	<b>71,021</b>	<b>131</b>	<b>30,33,752</b>	<b>108</b>	<b>32,58,789</b>	<b>115</b>	<b>2,25,037</b>	<b>...</b>
	<i>Native States.</i>												
13th April, 1889	The Nizam's (Guaran- teed Company)	277	33,104	120	354	48,662	137	16,30,024	139	19,08,559	120	2,78,535	...
13th ditto	The Gaekwar's	59	7,062	120	59	3,010	51	1,60,750	52	1,41,740	46	...	19,010
13th ditto	The Gaekwar's Meh- sana-Vadnagar	21	1,300	62	27	1,043	38	40,548	37	46,856	39	6,308	...
13th ditto	Bhavnagar-Gondal- Junagarh-Porbandar	193	31,386	163	260	44,444	171	10,66,486	106	12,00,123	110	1,33,637	...
13th ditto	Morvi	68	4,223	62	68	4,341	64	1,40,468	40	1,64,620	46	24,152	...
13th ditto	Jodhpore	124	7,768	63	124	10,286	83	3,59,035	55	3,56,421	55	...	2,614
	<b>TOTAL</b>	<b>742</b>	<b>84,843</b>	<b>114</b>	<b>892</b>	<b>1,11,786</b>	<b>125</b>	<b>33,97,311</b>	<b>94</b>	<b>38,18,319</b>	<b>93</b>	<b>4,21,008</b>	<b>...</b>

(a) Includes the Cawnpore-Achnera State Railway.

(b) Includes the Katni-Umaria State Railway.

(c) Includes the Bellary-Kistna State Railway.

(d) Includes the Sindia and Bhopal-Itarsi Railways.

(e) Includes the receipts of the Sindia Railway only.

(f) Includes the receipts of the Sindia Railway from 1st April, 1888, to 28th February, 1889, and those of the Bhopal-Itarsi Railway from 1st January, 1889.

(g) Total receipts from 15th September, 1887, to 31st March, 1888.

(h) Includes the Amritsar-Pathankot and Rajpura-Pathankot State Railways.

(i) Includes the Northern Bengal, Dacca, Kaunia-Dharila and Assam-Bonga-  
State Railways.

(j) Receipts for week ending 30th March, 1889.

(k) Total receipts from 1st April, 1888, to 30th March, 1889.

SIMLA, 2nd May, 1889.

M. C. BRACKENBURY, Major, R.E.,

Officiating Deputy Secretary.

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SUPPLEMENT TO  
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No. 19.} CALCUTTA, SATURDAY, MAY 11, 1889.

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OFFICIAL PAPERS.

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

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## Eastern Hill Tracts—

Chittagong Hill Tracts  
Hill Tipperah  
Nagá Hills

## Eastern—

Backergunge  
Noakhally  
Chittagong  
Tipperah  
Dacca  
Mymensingh

## Deltic—

Koolna  
24-Pergunnahs  
MidnaporeHowrah  
Calcutta  
Hooghly  
Nuddia (Kishnaghur)  
Jessoré  
Furzedpore

## Central—

Bankura  
Burdwan  
Beerbhoom  
Moorsheebad  
Sonthal Pergunnahs  
Purona  
Borra  
Raishahye  
Maldah

## Northern—

Rungpore  
Dinagpore  
Jalpaiguri  
Darjeeling

## Orissa—

Poores  
Cuttack  
Balasore

## Chota-Nagpur—

Singbhoom  
Manbhoom  
Lohardugga  
Hazaribagh

Not sold.

In sub-divisions retail prices of salt per rupee are:—At Jaipore and Kendrapara rice is procurable at 23 seers to chittacks per rupee.

At Cox's Bazar retail prices of salt per rupee are:—Patuakhali 5 seers, Porezore 9 seers, and Bhola 8 seers.

In sub-divisions retail prices of salt per rupee are:—Munshigunge 8-14 seers, and Naraingunge 10 seers.

In sub-divisions retail prices of salt per rupee are:—Kishoregunge 8 seers, Attea 10 seers, Jamalpore 9-8 seers, Sherepore 8 seers, and Netrokona 8 seers.

In sub-divisions retail prices of salt per rupee are:—Salkhira 9-13 seers and Bagirhat 8 seers.

In sub-divisions retail prices of salt per rupee are:—Baraset 9 seers, Bussirhat 9 seers, Barrackpore 9-2 seers, and Dum Dum 10 seers.

In sub-divisions retail prices of salt per rupee are:—Ghatal 10-12 seers, Tumlook 8 seers, and Contai 9 seers.

At Jehanabad retail price of salt 10 seers per rupee.

In sub-divisions retail prices of salt per rupee are:—Koochbas 10 seers, and Meherpore 10-8 seers, Choochdanga 10 seers, Raanaghat 10 seers.

None in market.

In sub-divisions retail prices of salt per rupee are:—Jhenida 9 seers, Magora 10 seers, Narail 9 seers, and Boongong 10 seers.

In sub-divisions retail prices of salt per rupee are:—Culina 10 seers, Cutwa 9-15 seers, and Raneeungunge 9-8 seers.

At Serajgunge retail price of salt per rupee are:—Lalbagh 9-8 seers, Jungipore 10 seers, and Kandi 10 seers.

In sub-divisions retail prices of salt per rupee are:—Nattore 9-12 seers and Nowgong 8-11 seers.

In sub-divisions retail prices of salt per rupee are:—Nilphamari 10 seers, Gaibanda 8 seers.

In Thakurgaon sub-division retail price of salt 8 seers per rupee.

At Fallacotta in the Alipore sub-division retail price of salt 8 seers per rupee.

At Siliguri retail price of salt 9 seers per rupee.

At Bhudruck retail price of salt 8 seers per rupee.

At Govindpore retail price of salt 9 seers per rupee.

At Daltongunge retail price of salt 8-44 seers per rupee.

Not available.

## RETAIL PRICES FOR THE 2ND HALF OF MARCH 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU ( <i>Sorghum vulgare</i> ).		BAJRA OR CUMBU ( <i>Pennisetum typhoides</i> ).		MARUA OR RAGI ( <i>Eleusine coracana</i> ).		KANGHI OR KAKUM, ITALIAN MILLET ( <i>Setaria italica</i> ).		GRAM, CHENNA, CHOLA, KADALAI OR SUNAGA ( <i>Cicer arietinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARHAR OR TURR CADIAN PEA ( <i>Calanus indicus</i> ).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
<b>Bengal—continued.</b>																										
<i>Behar, south—</i>																										
Monghyr . . . . .	17 9	15 12	26 4	25 4	11 10	12 9	13 12	15 8	...	...	...	...	30 7	...	13 10	13 10	26 4	18 14	16 12	21 0	21 0	147 0	147 0	9 8	9 8	9 8
Gya . . . . .	16 8	15 8	32 0	31 0	9 4	9 0	15 0	13 0	...	...	...	...	...	...	12 8	12 8	21 0	18 0	...	21 0	21 0	200 0	200 0	9 2	9 2	9 2
Pana . . . . .	17 8	18 0	34 0	33 0	11 0	11 0	15 0	16 8	25 0	25 0	...	...	...	...	15 8	15 8	20 0	25 0	22 8	25 0	25 0	130 0	130 0	10 0	10 0	10 0
Shahabad . . . . .	15 8	14 8	20 0	25 0	9 0	9 0	15 0	15 0	20 0	20 0	...	...	...	...	...	...	20 0	19 0	...	14 0	14 0	160 0	160 0	10 0	10 0	10 0
<i>Behar, north—</i>																										
Parnah . . . . .	13 0	13 0	...	11 0	13 8	15 0	15 0	16 0	...	...	...	...	...	...	...	...	14 0	13 0	...	10 0	10 0	200 0	200 0	9 0	9 0	9 0
<i>Bhagalpur . . . . .</i>	16 10	15 12	30 3	15 2	12 10	13 14	14 8	15 2	...	...	...	...	...	...	...	...	18 4	16 11	17 10	15 2	16 6	176 0	176 0	10 1	10 1	10 1
<i>Darbhanga . . . . .</i>	18 4	14 4	...	...	10 4	10 0	15 0	14 4	...	...	...	...	20 9	19 12	...	...	25 0	19 12	21 6	20 9	19 12	160 0	160 0	11 6	11 6	11 6
Motuffepore . . . . .	15 0	13 0	24 0	...	10 0	9 8	13 0	13 0	...	...	...	...	20 0	17 0	...	...	24 0	17 0	20 0	22 0	21 0	160 0	160 0	10 0	10 0	10 0
Sarun . . . . .	15 0	13 0	24 0	25 8	8 8	8 12	14 0	14 4	...	...	...	...	20 0	20 0	12 0	11 0	21 0	21 0	20 8	22 8	21 0	180 0	180 0	10 0	10 0	10 0
Champaran . . . . .	13 0	13 0	21 0	14 0	7 0	7 0	13 0	13 0	...	...	...	...	20 0	20 0	...	...	17 0	16 0	23 0	18 0	22 0	160 0	160 0	9 0	9 0	9 0
<b>N.-W. Provinces—</b>																										
<i>Eastern—</i>																										
Mirzapur . . . . .	15 8	14 8	23 0	20 0	7 0	8 0	13 0	13 0	18 0	17 0	16 0	16 0	15 0	14 10	12 0	12 0	22 0	20 0	18 0	21 0	24 0	100 0	100 0	10 0	10 0	10 0
Benares . . . . .	14 6	14 14	19 4	18 7	9 3	9 3	13 9	13 9	20 10	20 10	15 14	15 14	20 10	20 10	15 7	15 7	19 0	19 0	18 0	21 0	21 0	120 0	120 0	10 6	10 6	10 6
Ghaziipur . . . . .	16 1	16 1	16 12	16 12	7 1	7 1	12 14	12 14	17 6	17 6	16 12	16 12	20 10	20 10	...	...	21 8	20 8	19 0	21 0	21 0	154 8	154 8	9 10	9 10	9 10
Jampur . . . . .	15 0	15 0	16 8	16 8	7 0	7 0	14 0	14 0	...	...	...	...	...	...	...	...	21 8	20 8	19 0	21 0	21 0	140 0	140 0	8 8	8 8	8 8
Allahabad . . . . .	14 8	13 0	21 0	20 0	8 0	8 0	12 0	12 0	18 0	18 0	16 0	16 0	...	...	...	...	21 8	20 8	16 8	...	...	120 0	120 0	10 0	10 0	10 0
<i>Central—</i>																										
Banda . . . . .	18 0	18 0	23 8	23 0	8 0	8 0	12 0	12 0	22 0	22 0	20 0	20 0	...	...	...	...	25 8	28 0	...	18 0	18 0	160 0	160 0	10 8	10 8	10 8
Fatehpur . . . . .	15 4	17 12	21 8	21 4	12 0	12 0	12 12	12 12	21 0	20 0	18 0	18 0	...	...	...	...	21 8	21 8	...	27 8	25 0	160 0	160 0	10 8	10 8	10 8
Hamirpur . . . . .	15 0	19 8	24 11	24 2	9 11	9 0	12 1	12 0	...	...	...	...	...	...	...	...	26 7	25 4	...	34 8	34 12	140 0	140 0	11 0	11 0	11 0
Jalaun . . . . .	19 0	20 0	20 0	20 0	9 0	9 0	10 0	10 0	18 0	18 0	20 0	20 0	...	...	...	...	24 0	22 0	18 0	30 0	27 0	150 0	150 0	12 0	12 0	12 0
Cawnpore . . . . .	19 12	20 0	24 0	23 8	9 0	9 0	13 0	13 0	24 8	24 8	22 8	23 0	15 0	15 0	20 0	20 0	24 0	24 0	30 0	29 0	27 0	120 0	120 0	11 0	11 0	11 0
Etawah . . . . .	19 2	18 14	23 8	22 8	7 0	7 0	15 0	15 0	19 8	19 8	19 8	19 8	20 0	20 0	20 0	20 0	24 0	24 0	25 0	24 0	25 0	130 0	130 0	11 0	11 0	11 0
Farukhabad . . . . .	16 12	17 4	26 8	22 12	6 8	6 8	10 0	10 8	25 8	25 8	21 4	21 4	...	...	...	...	22 8	21 8	23 8	25 8	25 8	150 0	150 0	10 8	10 8	10 8
Mainpuri . . . . .	19 2	18 12	25 6	21 12	4 8	5 0	14 8	14 0	21 4	21 4	19 4	19 4	...	...	...	...	23 8	22 8	23 8	25 8	25 8	160 0	160 0	11 0	11 0	11 0
Etah . . . . .	19 11	19 8	30 8	29 0	7 8	7 8	14 0	14 0	22 8	24 8	20 0	20 0	...	...	...	...	34 0	25 0	25 8	18 4	16 8	160 0	160 0	11 4	11 4	11 4
<i>Western—</i>																										
Lalitpur . . . . .	18 0	17 4	20 0	20 0	9 0	9 0	11 8	11 8	20 0	20 0	14 0	15 0	20 0	20 0	15 0	16 0	21 0	19 8	20 0	13 0	13 0	160 0	160 0	10 0	10 0	10 0
Jhansi . . . . .	17 14	17 5	20 0	19 7	8 0	7 8	12 8	11 15	19 14	18 8	18 2	17 9	...	...	...	...	23 1	21 11	...	...	...	180 0	180 0	10 8	10 8	10 8
Agra . . . . .	17 0	17 0	23 8	22 8	5 0	5 0	9 0	9 0	22 0	22 0	21 0	21 0	...	...	...	...	26 0	28 0	29 0	15 0	15 0	100 0	100 0	12 0	12 0	12 0
Muttra . . . . .	17 0	17 0	27 0	27 0	7 8	7 8	12 0	12 0	26 0	26 0	24 0	24 0	...	...	...	...	29 0	29 0	30 0	25 0	25 0	120 0	120 0	12 0	12 0	12 0
Aligarh . . . . .	18 8	19 0	30 8	28 0	5 8	6 0	10 8	11 0	23 0	23 0	21 8	21 8	...	...	...	...	28 8	28 8	31 8	25 0	25 0	130 0	130 0	12 0	12 0	12 0
Bulandshahr . . . . .	19 14	19 4	30 8	28 0	7 0	6 0	11 0	10 2	22 0	22 0	20 0	20 0	...	...	...	...	29 4	28 8	33 0	15 0	15 0	120 0	120 0	11 4	11 4	11 4
Meerut . . . . .	19 0	18 0	27 8	26 0	6 0	6 0	13 0	13 0	26 0	26 0	20 0	20 0	14 0	14 0	14 0	14 0	26 0	25 0	30 0	27 0	21 0	100 0	100 0	11 8	11 8	11 8
<b>Sub-montane—</b>																										
Balia . . . . .	16 12	16 0	21 14	19 4	10 4	10 8	14 12	16 0	18 0	19 4	...	...	...	...	...	...	25 12	20 8	18 0	19 4	19 4	155 0	155 0	10 4	10 4	10 4
Azargah . . . . .	14 12	14 12	17 0	16 10	10 5	10 5	13 4	13 4	...	...	...	...	...	...	...	...	16 4	16 4	23 10	22 2	15 8	177 8	177 8	9 13	9 13	9 13
Gorakhpur . . . . .	14 8	14 6	19 0	18 0	9 1	9 0	13 5	12 9	16 2	18 0	13 6	14 6	18 2	18 0	16 13	16 13	20 13	19 11	19 0	20 0	20 0	140 0	140 0	10 0	10 0	10 0
Basti . . . . .	18 0	16 8	23 0	20 0	...	...	23 0	25 0	16 0	16 0	13 6	14 6	22 0	22 0	10 0	10 0	22 8	18 8	20 0	20 0	21 0	160 0	160 0	11 0	11 0	11 0
Shahjahanpur . . . . .	19 8	20 0	28 8	28 0	8 8	8 8	14 8	14 8	26 0	26 0	25 8	26 8	...	...	...	...	25 0	26 8	...	22 8	22 8	160 0	160 0	11 0	11 0	11 0
Rudaul . . . . .	18 8	18 4	30 8	28 0	6 0	6 0	13 4	13 4	21 0	21 0	20 0	20 0	...	...	...	...	21 0	21 0	...	22 0	22 0	192 0	192 0	11 0	11 0	11 0
Pilibhat . . . . .	17 8	17 4	25 0	23 0	12 8	12 8	13 13	13 13	20 0	20 0	16 4	16 4	...	...	...	...	22 8	21 4	24 0	24 0	23 0	160 0	160 0	11 8	11 8	11 8





## RETAIL PRICES FOR THE 2ND HALF OF MARCH 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU (Sorghum vulgare).		BAJRA OR CUMBU (Pennisetum hypochondrium).		MARUA OR RAGI (Eleusine coracana).		KANGNI OR KAKUM, ITALIAN WILLET (Aristida italica).		GRAM, CHOLLA, KADALAY OR SUNAGA (Cicer arietinum).		MAIZE (Zea Mays).		ARHAR OR THUR CADJAN PEA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
<b>Punjab—</b>																										
<b>Southern—</b>																										
Faisal . . . . .	20 0	20 0	28 0	27 0	10 0	10 0	24 0	25 0	22 0	21 0	20 0	20 0	20 0	20 0	16 0	15 0	20 0	20 0	18 0	18 0	11 0	11 0	85 0	85 0	11 0	11 0
Ferozepore . . . . .	22 0	20 0	30 0	27 0	10 0	10 0	24 0	25 0	20 0	20 0	20 0	20 0	20 0	20 0	16 0	15 0	20 0	20 0	30 0	25 0	11 0	11 0	100 0	100 0	13 0	13 0
Montgomery . . . . .	20 0	19 0	28 0	24 0	10 0	9 0	24 0	24 0	17 0	18 0	17 0	17 0	17 0	17 0	16 0	15 0	20 0	20 0	20 0	20 0	11 0	11 0	300 0	300 0	11 0	11 0
<b>Central—</b>																										
Ahmednagar . . . . .	20 0	20 0	28 0	28 0	11 0	11 0	26 0	26 0	24 0	23 0	23 0	23 0	23 0	23 0	14 0	14 0	20 0	20 0	20 0	20 0	11 0	11 0	130 0	130 0	11 0	11 0
Dhule . . . . .	20 0	19 0	30 0	28 0	11 0	11 0	24 0	25 0	20 0	21 0	21 0	21 0	21 0	21 0	14 0	14 0	20 0	20 0	25 0	25 0	11 0	11 0	80 0	80 0	11 0	11 0
Kolhapur . . . . .	20 0	20 0	25 0	22 0	11 0	11 0	26 0	26 0	24 0	24 0	24 0	24 0	24 0	24 0	14 0	14 0	20 0	20 0	16 0	16 0	11 0	11 0	120 0	120 0	11 0	11 0
Karnal . . . . .	21 0	20 0	30 0	29 0	11 0	12 0	27 0	27 0	18 0	18 0	18 0	18 0	18 0	18 0	14 0	14 0	20 0	20 0	35 0	30 0	11 0	11 0	120 0	120 0	11 0	11 0
Lahore . . . . .	19 0	18 0	33 0	29 0	9 0	7 0	32 0	27 0	18 0	18 0	18 0	18 0	22 0	22 0	14 0	14 0	20 0	20 0	35 0	30 0	10 0	10 0	120 0	120 0	10 0	10 0
<b>Sub-montane—</b>																										
Umballa . . . . .	23 0	23 0	29 0	29 0	12 0	12 0	29 0	29 0	16 0	16 0	16 0	16 0	20 0	20 0	10 0	10 0	20 0	20 0	30 0	30 0	19 0	19 0	130 0	130 0	12 0	12 0
Ludhiana . . . . .	25 0	24 0	40 0	32 0	12 0	12 0	30 0	30 0	22 0	26 0	26 0	26 0	20 0	20 0	20 0	20 0	20 0	20 0	32 0	32 0	14 0	14 0	110 0	110 0	12 0	12 0
Jullundur . . . . .	22 0	22 0	32 0	28 0	8 0	8 0	30 0	30 0	22 0	20 0	20 0	20 0	16 0	16 0	20 0	20 0	20 0	20 0	33 0	33 0	18 0	18 0	100 0	100 0	12 0	12 0
Hoshiarpur . . . . .	24 0	23 0	30 0	30 0	12 0	10 0	30 0	30 0	22 0	22 0	22 0	22 0	12 0	12 0	16 0	16 0	20 0	20 0	27 0	27 0	18 0	18 0	120 0	120 0	12 0	12 0
Gurdaspur . . . . .	20 0	18 0	26 0	24 0	13 0	12 0	23 0	23 0	14 0	14 0	14 0	14 0	16 0	16 0	12 0	12 0	20 0	20 0	26 0	24 0	10 0	10 0	120 0	120 0	12 0	12 0
Amritsar . . . . .	22 0	21 0	29 0	28 0	11 0	11 0	28 0	24 0	18 0	19 0	19 0	19 0	24 0	24 0	12 0	12 0	20 0	20 0	24 0	24 0	10 0	10 0	90 0	90 0	13 0	13 0
<b>Hills—</b>																										
Simla . . . . .	15 0	14 0	18 0	17 0	9 0	9 0	16 0	16 0	14 0	14 0	14 0	14 0	20 0	20 0	8 0	8 0	17 0	17 0	20 0	20 0	10 0	10 0	65 0	65 0	9 0	9 0
Kangra . . . . .	14 0	13 0	18 0	17 0	12 0	12 0	12 0	12 0	10 0	10 0	10 0	10 0	24 0	24 0	8 0	8 0	20 0	20 0	18 0	18 0	14 0	14 0	100 0	100 0	10 0	10 0
<b>North-western—</b>																										
Sialkote . . . . .	19 0	19 0	32 0	30 0	12 0	12 0	27 0	27 0	24 0	24 0	24 0	24 0	24 0	24 0	22 0	22 0	25 0	25 0	22 0	22 0	13 0	13 0	160 0	160 0	13 0	13 0
Gujranwala . . . . .	20 0	21 0	35 0	30 0	9 0	10 0	22 0	22 0	16 0	16 0	16 0	16 0	24 0	24 0	13 0	13 0	27 0	27 0	20 0	20 0	13 0	13 0	85 0	85 0	13 0	13 0
Guwat . . . . .	22 0	20 0	34 0	23 0	9 0	9 0	26 0	25 0	24 0	23 0	23 0	23 0	24 0	24 0	12 0	12 0	24 0	24 0	23 0	23 0	13 0	13 0	120 0	120 0	14 0	14 0
Jhelum . . . . .	19 0	20 0	20 0	20 0	10 0	9 0	23 0	26 0	23 0	23 0	23 0	23 0	20 0	20 0	16 0	16 0	21 0	21 0	27 0	27 0	16 0	16 0	160 0	160 0	14 0	14 0
Bawalpindi . . . . .	18 0	16 0	22 0	24 0	12 0	11 0	27 0	21 0	23 0	20 0	20 0	20 0	24 0	24 0	16 0	16 0	21 0	21 0	21 0	21 0	19 0	19 0	96 0	96 0	13 0	13 0
Hazara . . . . .	17 0	16 0	24 0	19 0	10 0	11 0	25 0	21 0	21 0	18 0	18 0	18 0	24 0	24 0	12 0	12 0	21 0	21 0	23 0	23 0	18 0	18 0	100 0	100 0	13 0	13 0
Peshawar . . . . .	18 0	16 0	26 0	29 0	10 0	10 0	25 0	24 0	15 0	15 0	15 0	15 0	24 0	24 0	18 0	18 0	21 0	21 0	22 0	22 0	23 0	23 0	112 0	112 0	11 0	11 0
Kohat . . . . .	16 0	16 0	26 0	23 0	11 0	12 0	25 0	18 0	15 0	17 0	17 0	17 0	24 0	24 0	18 0	18 0	24 0	24 0	22 0	22 0	23 0	23 0	125 0	125 0	41 0	41 0
<b>Western—</b>																										
Shahpur . . . . .	21 0	20 0	36 0	30 0	10 0	10 0	34 0	25 0	28 0	24 0	24 0	24 0	18 0	18 0	20 0	20 0	26 0	26 0	21 0	21 0	10 0	10 0	240 0	240 0	13 0	13 0
Jhang . . . . .	23 0	21 0	33 0	33 0	10 0	10 0	28 0	26 0	12 0	12 0	12 0	12 0	16 0	16 0	20 0	20 0	28 0	28 0	20 0	20 0	10 0	10 0	240 0	240 0	13 0	13 0
Mooltan . . . . .	17 0	17 0	30 0	28 0	10 0	9 0	26 0	25 0	20 0	20 0	20 0	20 0	24 0	24 0	12 0	12 0	20 0	20 0	22 0	22 0	10 0	10 0	240 0	240 0	13 0	13 0
Bannu . . . . .	20 0	18 0	32 0	25 0	10 0	10 0	25 0	23 0	18 0	18 0	18 0	18 0	24 0	24 0	12 0	12 0	20 0	20 0	24 0	24 0	13 0	13 0	60 0	60 0	40 0	40 0
D. I. Khan . . . . .	20 0	21 0	39 0	43 0	8 0	8 0	25 0	26 0	26 0	26 0	26 0	26 0	24 0	24 0	6 0	6 0	21 0	21 0	17 0	17 0	14 0	14 0	112 0	112 0	42 0	42 0
Muzaffargarh . . . . .	19 0	19 0	26 0	25 0	9 0	9 0	20 0	20 0	20 0	20 0	20 0	20 0	24 0	24 0	19 0	19 0	21 0	21 0	17 0	17 0	11 0	11 0	110 0	110 0	12 0	12 0
D. G. Khan . . . . .	18 0	18 0	26 0	25 0	9 0	9 0	23 0	23 0	25 0	25 0	25 0	25 0	24 0	24 0	21 0	21 0	21 0	21 0	17 0	17 0	11 0	11 0	125 0	125 0	27 0	27 0
<b>Sind and Baluchistan—</b>																										
Karachi . . . . .	13 0	12 0	18 0	18 0	8 0	8 0	16 0	16 0	14 0	14 0	14 0	14 0	16 0	16 0	17 0	17 0	17 0	17 0	14 0	14 0	7 0	7 0	90 0	90 0	14 0	14 0
Hyderabad (Gudu Bandar) . . . . .	14 0	13 0	18 0	18 0	7 0	7 0	17 0	17 0	14 0	14 0	14 0	14 0	16 0	16 0	15 0	15 0	15 0	15 0	14 0	14 0	11 0	11 0	160 0	160 0	11 0	11 0
Thar and Parkar (Umarkot) . . . . .	15 0	14 0	20 0	20 0	8 0	8 0	22 0	22 0	20 0	20 0	20 0	20 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	11 0	11 0	160 0	160 0	12 0	12 0
Sukkur . . . . .	13 0	13 0	18 0	18 0	8 0	8 0	22 0	22 0	20 0	20 0	20 0	20 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	11 0	11 0	160 0	160 0	12 0	12 0
Shikarpur . . . . .	14 0	13 0	16 0	15 0	8 0	8 0	20 0	20 0	20 0	20 0	20 0	20 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	11 0	11 0	160 0	160 0	12 0	12 0
Upper Sind Frontier . . . . .	14 0	13 0	15 0	15 0	7 0	7 0	16 0	16 0	22 0	22 0	22 0	22 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	11 0	11 0	160 0	160 0	12 0	12 0
Quetta . . . . .	14 0	13 0	15 0	15 0	7 0	7 0	16 0	16 0	22 0	22 0	22 0	22 0	24 0	24 0	19 0	19 0	19 0	19 0	14 0	14 0	11 0	11 0	160 0	160 0	12 0	12 0



## RETAIL PRICES FOR THE 2nd HALF OF MARCH 1889—concluded.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM (Sorghum vulgare).		BAJRA OR CUMRU (Pennisetum typhoides).		MARUA OR RAGI (Eleusine coracana).		KANGNI OR KAKUN, ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, CHOLA, KADALAY OR SUNDAY (Cicer arietinum).		MAIZE (Zea Mays).		ARHAR OR TUR CADJAN PVA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
<b>Madras—</b>																										
Malabar Coast—																										
Malabar . . . . .	8 10	8 10	...	...	12 3	12 3	13 0	13 0	...	...	...	...	20 6	20 6	...	...	...	...	...	...	...	...	136 2	136 2	11 11	11 11
S. Canara . . . . .	8 8	8 8	...	...	12 10	12 10	13 11	13 10	...	...	...	...	21 13	21 13	...	...	...	...	...	...	...	...	128 13	128 13	13 5	13 5
<b>South, central—</b>																										
Coimbatore . . . . .	11 8	11 8	...	...	13 0	13 0	14 0	14 0	21 11	21 11	23 13	23 14	26 3	26 3	...	...	...	...	...	...	...	...	133 10	133 10	11 11	11 11
Nilgiris . . . . .	9 14	10 11	...	...	9 10	9 10	11 3	11 3	20 0	20 0	16 13	16 13	20 14	20 14	...	...	...	...	...	...	...	...	161 13	161 13	10 2	10 2
Salem . . . . .	10 3	10 3	...	...	11 13	12 3	13 11	13 11	25 0	25 0	22 2	22 2	30 13	30 13	...	...	...	...	...	...	...	...	186 10	186 10	13 8	13 8
<b>Central—</b>																										
Bellary . . . . .	13 6	13 6	...	...	12 13	12 13	14 0	14 0	29 14	28 13	20 11	21 10	33 0	34 14	...	...	...	...	...	...	...	...	97 3	97 3	11 14	11 14
Anantapur . . . . .	11 8	11 8	...	...	13 6	13 6	14 0	14 0	31 6	31 6	25 6	25 6	32 0	32 0	...	...	...	...	...	...	...	...	155 8	155 8	11 5	11 5
Cuddapah . . . . .	14 0	14 0	...	...	11 6	11 6	12 3	12 3	22 2	22 2	27 14	27 10	28 8	31 8	...	...	...	...	...	...	...	...	140 0	140 0	12 10	12 10
Kurnool . . . . .	11 6	11 6	...	...	11 6	11 6	12 3	12 3	24 5	24 5	21 5	20 0	...	...	...	...	...	...	...	...	...	...	142 14	142 14	11 5	11 11
<b>East Coast, north—</b>																										
Ganjam . . . . .	10 6	10 0	...	...	9 13	9 8	10 6	10 0	...	...	...	...	18 10	18 0	...	...	...	...	...	...	...	...	264 6	194 6	12 3	12 0
Vizagapatam . . . . .	12 0	12 0	...	...	9 0	9 0	10 3	10 3	20 8	20 8	19 13	19 13	18 3	19 3	...	...	...	...	...	...	...	...	116 19	116 10	11 11	11 11
Godavari . . . . .	11 11	10 13	...	...	14 0	13 14	15 8	15 0	24 0	21 2	21 2	19 6	21 13	20 0	...	...	...	...	...	...	...	...	243 0	243 0	12 0	12 0
<b>East Coast, central—</b>																										
Kistna . . . . .	10 6	10 6	...	...	13 11	13 11	14 5	14 5	22 2	22 2	...	...	23 13	23 13	...	...	...	...	...	...	...	...	170 2	170 2	13 3	13 3
Nellore . . . . .	10 6	9 14	...	...	13 14	12 14	14 0	14 0	23 0	23 0	21 13	21 13	26 6	26 6	...	...	...	...	...	...	...	...	93 5	93 5	11 11	11 11
<b>East Coast, south—</b>																										
Madras . . . . .	10 10	10 10	...	...	11 10	11 10	13 6	13 6	...	...	...	...	27 11	27 11	...	...	...	...	...	...	...	...	89 14	89 14	12 5	12 5
Chingleput . . . . .	...	...	...	...	13 8	13 8	15 2	15 2	...	...	21 2	21 2	27 6	26 0	...	...	...	...	...	...	...	...	122 8	122 8	12 6	12 6
N. Arcot . . . . .	9 6	9 6	...	...	11 10	12 3	13 3	13 8	...	...	...	...	34 3	33 5	...	...	...	...	...	...	...	...	194 6	194 6	11 5	11 5
S. Arcot . . . . .	7 13	7 13	...	...	12 3	12 3	15 13	15 13	...	...	24 10	24 10	25 0	25 0	...	...	...	...	...	...	...	...	209 0	209 0	10 13	10 13
Tanjore . . . . .	8 2	8 2	...	...	15 13	15 13	16 0	16 0	...	...	23 14	23 14	26 6	27 3	...	...	...	...	...	...	...	...	166 3	166 3	12 14	12 14
Trenchinopoly . . . . .	8 14	8 10	...	...	12 10	12 10	13 6	13 6	21 0	21 0	20 5	20 5	23 10	23 10	...	...	...	...	...	...	...	...	143 6	143 6	12 3	12 3
<b>Southern—</b>																										
Tinnevely . . . . .	8 14	8 14	...	...	13 2	13 2	13 10	13 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53 5	53 5	14 13	14 13
Naduru . . . . .	10 14	11 14	...	...	13 14	13 14	14 6	14 6	...	...	22 0	22 2	26 5	27 14	...	...	...	...	...	...	...	...	140 14	136 2	13 10	13 10
<b>Mysore—</b>																										
Mysore . . . . .	10 0	10 0	10 8	10 8	11 0	10 0	12 0	12 8	29 0	30 0	28 0	29 0	30 0	30 0	...	...	...	...	...	...	...	...	102 0	108 0	8 8	9 0
Bangalore . . . . .	10 8	10 8	11 8	11 8	9 8	9 8	11 8	11 8	24 0	24 0	...	...	34 0	34 0	...	...	...	...	...	...	...	...	96 0	96 0	9 8	9 8
Kolar . . . . .	10 0	10 0	9 0	9 0	10 0	10 0	12 0	12 8	26 0	26 0	...	...	40 0	43 0	...	...	...	...	...	...	...	...	144 0	144 0	9 0	9 0
Tumkur . . . . .	11 0	11 0	11 0	11 0	12 0	12 0	13 0	13 0	...	...	...	...	44 0	44 0	...	...	...	...	...	...	...	...	340 0	340 0	9 0	9 0
Hassan . . . . .	...	...	11 0	11 0	12 0	12 0	13 0	13 0	...	...	...	...	42 0	42 0	...	...	...	...	...	...	...	...	96 0	96 0	9 0	9 0
Kadur . . . . .	10 0	10 0	11 0	11 0	10 0	10 0	12 0	12 0	...	...	...	...	48 0	48 0	...	...	...	...	...	...	...	...	320 0	320 0	9 0	9 0
Shimoga . . . . .	13 10	12 10	...	...	12 10	12 10	15 12	15 12	29 6	31 8	...	...	46 3	44 1	...	...	...	...	...	...	...	...	480 0	480 0	8 6	9 7
Chitaldrug . . . . .	13 0	13 0	15 0	15 0	11 0	11 0	13 0	14 0	48 0	48 0	32 0	32 0	55 0	55 0	...	...	...	...	...	...	...	...	320 0	320 0	9 0	9 0
<b>Coorg—</b>																										
Coorg . . . . .	9 0	9 0	8 0	8 0	13 0	13 0	16 0	16 8	...	...	...	...	35 0	35 8	...	...	...	...	...	...	...	...	110 0	110 0	10 8	10 8
<b>Aden</b>	8 0	8 0	...	...	6 3	6 3	8 0	8 0	10 3	10 3	9 4	9 4	...	...	...	...	...	...	...	...	...	...	65 5	65 5	32 0	32 0

\* Not sold.

DEPARTMENT OF FINANCE AND COMMERCE,  
(Statistical Branch).E. J. SINKINSON,  
Offg. Secretary to the Government of India.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

**GENERAL RULES FOR WORKING INDIAN RAILWAYS.**

No. 69 R. T., dated Simla, the 16th April 1889.

RESOLUTION—By the Government of India, Public Works Department.

**Read again—**

Section 8 of Act IV (the Indian Railway Act) of 1879.

Public Works Department Notification No. 299, dated 13th September 1880, publishing the General Rules for all Railways in India, and Public Works Department Circular No. 17 Railway, dated 21st August 1880.

Public Works Department letter No. 1062 R. T., dated 20th October 1886.

**Read also—**

Bombay Government letter No. 459, dated 26th February 1887.

Notification by the Government of India in the Foreign Department, No. 1343-1., dated the 28th March 1889.

**OBSERVATIONS.**—In accordance with the provisions of Section 8 of the Indian Railway Act IV of 1879, as extended by the Notification of the Government of India in the Foreign Department read above, to the lands occupied by the Bhavnagar-Gondal-Junagadh-Porbandar Railway in the territories of the Rulers or Representatives of the States of Baroda, Junagadh, Gondal, Wadhwan, Bhavnagar, Limli, Chura, Wala, Lathi, Piparia, Bantwa, Jetpur and Porbandar, the Manager of that Railway has applied that the General Rules for Indian Railways, which have received the sanction of the Governor General in Council and were published in the *Gazette of India*, dated 18th September 1880, may be applied to the Bhavnagar-Gondal-Junagadh-Porbandar Railway, with the exception of Rules 342 and 343, which he requests may be modified so as to read as follows:—

"No. 342.—No engine or train shall be moved from any station until the Driver has in his possession a "Line Clear," "Caution Message," or other permission written on the authorized form showing that he can proceed to the next station. The Driver is to receive this written permission from no other person than the Guard of his own train, or from the Station Master, or from one of the Station staff duly authorised for such duty; but on all occasions when the Guard does not personally deliver the permission to the Driver, it must be countersigned by the Guard before delivery to the Driver. The Driver must also receive from the Guard the usual starting signal before moving.

When a train is arranged to run through a station without stopping, the written permission to proceed to the next station may be handed to the Driver direct by the Station Master or other authorised person of the Station staff, and a duplicate of it handed to the Guard in the same manner.

"No. 343.—The Station Master, or other authorised person of the Station staff, is to hand the written permission to the Guard, who must satisfy himself that it is properly filled up and dated with the time added, and is signed in full and in ink, and that it applies to the particular train or engine for which it is given and received before handing it to the Driver. The Driver must also satisfy himself on these points before starting.

This written permission is never to be given to the Driver until the train is to start; and when waiting to pass another train, it must not be given to the Driver until the whole of such other train has come in and is clear of the points.

When a train is not timed to stop at a station, and the written permission is handed both to the Driver and Guard of the train, the Station Master will be held wholly responsible that it applies to the particular train or engine for which it is given, and that it is properly filled up and dated, with the time added, and is signed in full and in ink."



**RESOLUTION.**—With Rules 342 and 343 altered as proposed, and with the exception of section XVII which refers to the working of a single line of railway on the system termed in Rule 3 of the said Rules "Train Despatching," the Governor General in Council is pleased, under Section 8 of the said Act as so extended, to sanction the application to the Bhavnagar-Gondal-Junagadh-Porbandar Railway of the General Rules for Indian Railways as published in the *Gazette of India* dated 18th September 1880.

**ORDER.**—Ordered that the General Rules, which have been published in the *Gazette of India*, be further notified to the Railway servants and the public by a copy thereof [with the exception and alterations noted] and of this Resolution being kept open to inspection, free of any charge, in the office of the Station Master of every station on the said Railway.

Ordered also that this Resolution be communicated to the Secretary to the Government of Bombay, Public Works Department, for information and guidance, with reference to his letter No. 459, dated 26th February 1887, and that it be published in the *Gazette of India*.

R. C. B. PEMBERTON, *Colonel, R. E.,*  
*Secretary.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
CIVIL WORKS.  
Irrigation.

STATEMENTS OF IRRIGATION OPERATIONS ON PERENNIAL CANALS IN THE PUNJAB FOR THE KHARIF CROP OF 1888-89.

STATEMENT No. I.

IRRIGATION OPERATIONS OF THE KHARIF CROP OF 1888 ON PERENNIAL CANALS.

*Comparative Abstract of Irrigation and Rainfall in Canal Districts of the Punjab.*

1	Districts.	2	3	4	5	6	7	RAINFALL IN KHARIF MONTHS.													20	21																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
								COMPARISON WITH LAST CROP.	April. 1888.	May. 1888.	June. 1888.	July. 1888.	August. 1888.	September. 1888.	October. 1888.	November. 1888.	December. 1888.	January. 1889.	February. 1889.	March. 1889.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Area in acres.	Cultivated area in acres.	Khari, 1888.	Khari, 1887.	Increase.	Decrease.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887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(1) The area irrigated in Jind State from the Western Jumna Canal is not shown, as the Jind distributaries were handed over to the State on 1st April 1888.

(2) This is the correct acreage and differs from that shown in the return for kharif 1887.

(3) Include 6,150 acres as approximate irrigated area of Changa Manga Plantation.

Area irrigated in Kharif 1888  
ditto 1887

Net decrease 10,756

There would have been an increase of about 20,000 acres if the Jind irrigation had been included.

F. I. HOME, *Lieut-Colonel, R.E.*,  
*Off. Joint-Secretary to Govt., Punjab. P. W. D., Irrigation Branch.*

LAWRE:  
*The 18th March 1889.*

STATEMENT No. II.  
IRRIGATION OPERATIONS OF THE KHARIF CROP OF 1888 ON PERENNIAL CANALS.  
*Statement in Acres of Crops irrigated in Canal Districts.*

DESCRIPTION OF CROPS.	Umballa	Karnal.	Rohtak.	Delhi.	Hissar.	Jind State.	Bikaner State.	Kalsia State.	Gurdaspur.	Amritsar.	Lahore.	Ludhiana.	Ferozepore.	Faridkot State.	Nabha State.	Patiala State.	Peshawar.	TOTAL.
Sugarcane	407	8,319	11,171	15,320	...	...	...	173	8,743	8,098	5,921	1,293	217	12	4	37	968	60,765
Rice	1,651	11,705	1,864	4,149	7,086	...	...	1,007	11,173	25,903	15,059	5	25	5	1	1	2,807	82,441
Cotton	2	6,515	5,762	2,409	11,670	...	75	337	809	7,271	27,659	1,580	9,582	2,493	933	1,111	2,508	80,716
Indigo	...	2,054	7,251	2,166	...	...	...	...	...	...	227	...	452	...	...	...	40	12,190
Others	39	5,703	5,502	3,721	22,891	83	236	499	2,525	39,716	68,742	8,141	78,794	16,877	4,631	10,470	27,592	296,162
TOTAL KHARIF, 1888	2,099	34,296	31,550	27,765	41,729	83	311	2,016	23,250	89,988	117,608	11,019	89,070	19,387	5,569	11,619	33,915	532,274
TOTAL KHARIF, 1887	2,117	35,087	35,234	30,209	43,618	32,596	238	2,068	20,784	76,437	109,634	9,627	74,578	18,174	4,420	8,216	39,993	(1) 543,030

(1) This is the correct acreage and differs from that shown in the Statement for Kharif of 1887.

LAHORE:

The 18th March 1889.

F. J. HOME, *Lieut.-Colonel, R.E.,*  
*Offg. Joint-Secretary to Government, Punjab, P. W. D., Irrigation Branch.*

STATEMENT NO. III.  
IRRIGATION OPERATIONS OF THE KHARIF CROP OF 1888 ON PERENNIAL CANALS.  
Statement in Acres of Crops irrigated in Canal Divisions.

Description of Crops.	Western Jumna Canal.			Bari Doab Canal.			Sirhind Canal.			Swat River Canal Division.	Total.
	Karnal Division. (a)	Delhi Division.	Total.	1st Division.	2nd Division.	Total.	Ludhiána Division.	Ferozepore Division.	Total.		
Sugarcane . . . . .	5,070	30,397	35,467	9,524	13,238	22,762	1,377	191	1,568	968	60,765
Rice . . . . .	17,971	9,491	27,462	16,013	36,122	52,135	16	21	37	2,507	82,441
Cotton . . . . .	16,566	9,858	26,424	6,740	28,999	35,739	4,406	11,639	16,045	2,508	80,716
Indigo . . . . .	...	11,471	11,471	...	227	227	...	452	452	40	12,190
Others . . . . .	32,017	5,632	37,649	28,753	82,230	110,983	30,186	89,752	119,938	27,592	296,162
TOTAL KHARIF, 1888 . . . . .	71,624	66,849	138,473	61,030	160,816	221,846	35,985	102,055	138,040	33,915	532,274
TOTAL KHARIF, 1887 . . . . .	(b) 113,815	66,307	(b) 180,122	53,959	(b) 152,896	(b) 206,855	27,800	88,260	116,060	39,993	(b) 543,030

(a) Includes the Hansi Division, which was amalgamated with it on the 1st April 1888.  
(b) These are the correct acreages and differ from those shown in the statement for Kharif, 1887.

LAHORE,  
The 18th March 1889.

F. J. HOME, Lieut.-Colonel, R.E.,  
Offg. Joint Secy. to Govt., Punjab, P. W. D.,  
Irrigation Branch



GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
CIVIL WORKS.  
Irrigation.

STATEMENTS OF IRRIGATION OPERATIONS IN THE NORTH-WESTERN PROVINCES  
FOR THE KHARIF SEASON OF 1888-89.

GOVERNMENT, N.-W. P. AND OUDH.  
PUBLIC WORKS DEPARTMENT.  
Irrigation Branch.

Irrigation Operations, North-Western Provinces, for the  
"Kharif" Season (1st April to 30th September) 1888.

No. 7061., dated Allahabad, the 2nd March 1889.

RESOLUTION—By His Honor the Lieutenant-Governor, North-Western Provinces, and Chief  
Commissioner, Oudh.

READ—

Statements A23, B23, and C23, showing Irrigation Operations for kharif, 1888, of  
Canals in the North-Western Provinces.

OBSERVATIONS.—The area irrigated during kharif, 1888, was 702,959 acres against 650,597 acres in 1887, and 589,908 in 1886; an increase of 8.04 and 19.16 per cent. respectively.

All canals, except the Agra and Bijnor Canals and the Bundelkhand Lakes, show an increase.

The monsoon broke early in July southwards of Aligarh, but not till about a fortnight later northwards of that place; and continued with no general or well-defined "break" nearly to the end of September. No crops, except rice, were irrigated after the rains commenced.

The assessments on account of occupiers' rate amounted to Rs. 1,90,933 against Rs. 19,95,753 in 1887 and Rs. 17,57,488 in 1886; an increase of 9.73 and 24.66 per cent. respectively.

2. Table I shows the areas under the different crops for the past four years:—

TABLE I.

CROPS.	1885.	1886.	1887.	1888.
	Acres.	Acres.	Acres.	Acres.
Sugarcane . . . . .	175,638	169,123	197,604	225,280
Rice . . . . .	95,986	151,232	134,822	141,852
Bājra and Juār . . . . .	6,062	4,304	4,452	3,917
Maize . . . . .	14,505	13,929	9,868	23,781
Other food-grains . . . . .	7,109	8,758	9,783	9,554
Fodder Crops . . . . .	5,878	6,415	7,753	6,966
Fibres (Cotton) . . . . .	57,341	41,373	47,671	36,042
Dyes (Indigo) . . . . .	297,282	163,957	212,732	224,160
Miscellaneous . . . . .	42,457	30,817	25,912	31,407
TOTAL . . . . .	702,258	589,908	650,597	702,959

Sugarcane shows an increase of 26,676 acres, or about 14 per cent.; indigo an increase of 11,428 acres, or 5.4 per cent.; rice an increase of 7,030 acres, or 5.3 per cent.

Owing to the late setting in of the rains the area under maize is nearly 2½ times as great as in 1887.

Cotton shows a decrease of 11,629 acres, or 24·4 per cent.; due partly to the large area under sugarcane, which required all the available supply on the Upper Ganges and Eastern Jumna Canals.

3. Table II compares the areas by canals during the last two years:—

TABLE II.

CANALS.	1887.	1888.	More.	Less.
	Acres.	Acres.	Acres.	Acres.
Upper Ganges . . . . .	259,992	278,037	18,045	...
Lower Ganges . . . . .	143,778	161,681	17,903	...
Agra . . . . .	58,949	48,638	...	10,311
Eastern Jumna . . . . .	90,754	103,942	13,188	...
Betwa . . . . .	2,290	3,478	1,188	...
Dún . . . . .	6,300	6,781	481	...
Rohilkhand . . . . .	45,657	46,379	722	...
Bijnor . . . . .	4,367	4,238	...	129
Hamirpur Lakes . . . . .	282	203	...	79
Jhānsi Lakes . . . . .	67	65	...	2
Tarāi . . . . .	13,000	20,805	7,805	...
Bhābar . . . . .	25,161	28,712	3,551	...
TOTAL .	650,597	702,959	52,362	...

The decrease on the Agra Canal is said to be due to the restricted sowings under the apprehension of another year of heavy rain and to the insufficient supply of water during the hot weather.

4. The assessments on account of occupiers' rates by canals for the last four years are shown in Table III.

TABLE III.

CANALS.	1885-86.	1886-87.	1887-88.	1888-89.
	R	R	R	R
Upper Ganges . . . . .	10,04,071	8,64,057	9,54,667	10,65,814
Lower Ganges . . . . .	4,86,755	2,79,488	3,82,510	4,19,888
Agra . . . . .	1,97,862	1,57,631	1,79,914	1,53,690
Eastern Jumna . . . . .	3,57,940	3,87,572	3,95,953	4,56,706
Betwa . . . . .	...	4,760	12,187	18,371
Dún . . . . .	16,339	17,877	19,597	20,278
Rohilkhand . . . . .	38,906	40,966	41,011	44,569
Bijnor . . . . .	6,641	4,077	8,891	8,873
Bundelkhand Lakes . . . . .	815	1,060	1,023	744
TOTAL .	21,39,359	17,57,488	19,95,753	21,90,933

The Upper Ganges and Eastern Jumna Canals show the largest increase, owing to the large area under 1st class crops, sugarcane and rice, on these canals.

The rate per acre irrigated is R3·12 against R3·26 in the previous year.

By order, &c.,

G. T. SKIPWITH, *Lieut.-Col., R.E.,*  
*Offg. Joint-Secy. to Govt., N.-W. P. and Oudh,*  
*P. W. D., Irrigation Branch.*

ORDER.—Ordered that copies of this Resolution be submitted to the Government of India, that it be circulated to other Governments and to Local Departments, and that it be published in the *North-Western Provinces and Oudh Gazette.*

## PUBLIC WORKS DEPARTMENT, N.-W. PROVINCES.

## IRRIGATION OPERATIONS OF FASL KHARIF, 1888.

No. A.23—KHARIF STATEMENT.

## Comparative Abstract of Irrigation and Rainfall in Canal Districts of the North-Western Provinces.

District.		Area.	Culturable Area.	Area Irrigated.		1888 AS COMPARED WITH 1887.		RAINFALL DURING KHARIF MONTHS OF 1888 AND 1887.													
				Kharif, 1888.	Kharif, 1887.	Increase.	Decrease.	April.		May.		June.		July.		August.		September.		Total.	
								1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
Saharanpur	1,425,020	1,003,101	53,105	47,366	5,739	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Muzaffarnagar	1,072,000	908,497	86,208	77,602	8,606	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meerut	1,507,840	1,334,209	125,459	114,509	10,950	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bulandshahr	1,214,080	1,084,407	60,109	54,520	5,589	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Aligarh	1,251,392	1,041,512	39,689	39,361	328	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Muttra	932,480	862,096	23,087	26,668	...	5,611	0,04	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra	1,187,814	958,205	8,843	11,618	...	2,775	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Etah	1,112,960	894,829	22,534	22,552	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mainpuri	1,086,080	764,575	26,444	26,592	...	58	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Farrukhabad	1,100,160	864,792	15,771	13,264	2,507	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Etawah	1,084,160	795,233	53,572	48,276	5,296	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cawnpore	1,514,368	1,103,465	59,806	49,668	10,138	...	0,01	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Delhi	805,120	525,440	18	37	...	19	0,8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurgaon	1,240,320	993,280	17,653	19,500	...	1,847	0,4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dehra Dun	764,544	385,285	6,781	6,300	481	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bijnor	1,195,520	1,024,530	4,238	4,367	...	129	0,58	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tarai	590,720	566,856	26,012	17,863	8,149	...	0,10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pilibhit	878,720	709,334	5,989	7,812	...	1,823	0,30	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bareilly	1,018,240	911,423	35,183	32,982	2,201	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Idnau	1,002,752	724,553	65	67	...	2	0,08	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hamirpur	1,464,704	1,230,803	203	282	...	79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jalaun	905,200	777,868	3,478	2,290	1,188	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kumaon Bhábar	(Not known)	(Not known)	26,712	25,161	3,551	...	2,10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	21,445,124	19,548,302	702,959	650,597	64,723	12,361	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ALLAHABAD:		NET INCREASE		...	52,362	...	...	H W. CONDUITT,													

H. W. CONDUITT,  
Asst. Secy. to Govt., N.-W. P. and Oudh, P. W. D.

## PUBLIC WORKS DEPARTMENT, N.-W. PROVINCES.

## IRRIGATION OPERATIONS OF FASL KHARIF, 1888.

## Statement in Acres of Crops irrigated in Canal Districts.

No. B.23—KHARIF STATEMENT.

Nature of Crops.	Shekrapur.	Muzaffarnagar.	Meerut.	Bulandshahr.	Aligarh.	Muttra.	Agra.	Rah.	Mathura.	Farukhabad.	Etawah.	Cannore.	Delhi.	Gurgaon.	Dehra Dun.	Bijnor.	Tarai.	Pilibhit.	Bareilly.	Jhansi.	Hamirpur.	Jalaun.	Bahar.	Total.
I.—Gardens and orchards .	853	610	1,360	780	587	86	144	174	114	11	170	211	...	65	307	2	8	10	59	2	...	20	212	5,785
II.—Sugarcane .	19,420	52,277	83,717	16,988	2,613	675	1,028	3,274	3,859	3,836	7,046	5,540	...	2,648	1,320	3,405	1,528	2,485	10,744	39	156	2,324	349	225,380
III.—Cereals .	28,898	24,530	11,046	679	746	...	14	216	459	53	1,071	3,986	...	...	4,965	810	19,889	2,701	18,746	7	22	29	22,991	141,852
Rice .	...	4	...	3	...	...	...	11	...	...	114	...	...	...	...	...	...	...	...	...	...	...	...	...
Bajra .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maize .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous .	223	938	3,336	869	600	107	272	268	243	45	334	94	...	604	...	...	4,598	774	5,187	...	...	40	886	23,781
IV.—Pulses .	137	457	209	280	184	55	39	375	1,388	254	564	102	...	14	23	...	...	...	16	3	...	...	2,653	8,041
V.—Fodder crops .	18	162	274	19	3	100	3	3	1	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...
Cotton .	359	1,161	3,639	931	389	420	1,329	1,247	810	...	7	...	...	7,409	...	...	...	...	...	...	...	...	...	...
Other fibres .	492	1,845	3,774	6,915	4,976	6,356	1,329	1,247	212	...	65	...	...	1	...	...	...	...	...	...	...	...	...	...
VI.—Indigo .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VII.—Dyes .	1,329	3,167	16,143	29,657	26,030	14,385	5,146	14,667	15,075	9,601	37,459	44,011	...	6,508	...	...	...	...	147	...	...	607	...	...
VIII.—Drugs .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Opium .	136	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other drugs .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IX.—Oilseeds .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
X.—Miscellaneous .	1,934	1,025	1,598	502	842	645	618	796	2,699	1,366	4,666	5,637	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL KHARIF, 1888	55,105	86,208	125,459	60,109	39,689	23,087	8,843	22,534	26,444	15,771	53,572	59,806	18	17,653	6,781	4,258	26,012	5,989	35,183	65	203	3,478	28,712	702,959
TOTAL KHARIF, 1887	47,366	77,602	114,509	54,520	39,361	28,698	11,618	22,552	26,502	13,264	48,276	49,668	37	19,500	6,300	4,567	17,863	7,812	32,982	67	282	2,290	25,161	650,597

H. W. CONDUITT,  
Asst. Secy. to Govt. N.-W. P. and Oudh, P. W. D.

ALLAHABAD :  
The 2nd March 1889.



No. C23.—KHARIF STATEMENT.  
 PUBLIC WORKS DEPARTMENT, N.-W. PROVINCES.  
 IRRIGATION OPERATIONS OF FASL KHARIF, 1888.  
 Statement in Acres of Crops irrigated by Canals in Canal Divisions.

NATURE OF CROPS.	GANGES CANAL.						LOWER GANGES CANAL.						Eastern Jumna Canal.	Betwa Canal.	Dun Canal.	Rohilkhand Canals.	Bijnor Canals.	BUND- EL-KHANDIRIGA- TION WORKS.		Tara Canals.	Bhbar Canals.	Total.
	Northern.	Anupshahr.	Meerut.	Bulandshahr.	Aligarh.	Total.	Narora.	Mainpuri.	Cawnpore.	Etawah.	Bhognipur.	Total.						Jhansi Lakes.	Hamirpur Lakes.			
I.—Gardens and orchards	529	357	895	726	938	3,445	4	6	208	176	67	461	261	968	20	307	77	2	...	...	212	5,785
II.—Sugarcane	30,482	32,052	42,677	14,766	5,100	125,077	1,636	1,435	7,470	8,110	2,560	21,211	4,304	52,318	24	1,330	13,853	39	156	...	349	225,280
III.—Cereals	19,986	1,523	7,078	1,162	1,007	30,756	10	139	238	4,346	820	5,553	3	35,378	29	4,905	21,447	7	22	19,883	22,991	141,853
IV.—Pulses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	200
V.—Fodder crops	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,717
VI.—Fibres	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21,781
VII.—Dyes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,041
VIII.—Drugs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,513
IX.—Oilseeds	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6,965
X.—Miscellaneous	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	384
TOTAL KHARIF, 1888	53,894	53,166	63,491	49,877	57,609	278,037	10,447	7,880	43,426	62,031	35,897	161,681	48,638	103,912	3,478	6,781	46,979	65	203	20,805	28,712	702,959
TOTAL KHARIF, 1887	50,104	48,155	58,212	46,275	57,246	259,932	10,839	7,199	39,406	56,232	30,106	143,778	58,948	90,751	2,200	6,300	45,657	67	28	13,000	25,161	659,597

ALLAHABAD :

The 2nd March 1889,

H. W. CONDUITT,

Asst. Secy. to Govt., N.W. P. and Oudh, P. W. D.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and prospects of the Crops.

**Madras.**—*For week ending 4th May, 1889.*—No rain in Kistna, Nellore, Madras, and Chingleput; fair in Coimbatore, Nilgiris, Salem, and Malabar; slight elsewhere. Standing crops generally good, but suffering from want of rain in Ganjam, Vizagapatam, and North Arcot; wet crops withering in parts of Cuddapah and Anantapur. Pasture deficient in Ganjam, Vizagapatam, Bellary, Madura, Salem, and Malabar. Prices rising in eleven districts, falling in four, and stationary in others; price of rice and *cumbu* has risen in Ganjam. Labourers employed on last day of week—on Rushikulya works, 6,791; Gopalsore Canal, 4,352; and Taptapani and three other roads, 1,216. General prospects favourable, except in Ganjam; much improved in Coimbatore.

**Bombay.**—*For week ending 8th May, 1889.*—Rain throughout Southern Mahratta Country and in parts of Sholapur and Satara. Exotic cotton in parts of Dharwar reviving. Harvesting of late crops continues in parts. Preparations for next season's crops progressing generally, and sowing in parts of Karachi and Sholapur. Fodder scarce in Khandesh and Nasik and in parts of Poona, Ahmednagar, Sholapur, Dharwar, Kanara, Kathiawar, and Baroda.

**Bengal.**—*For week ending 7th May, 1889.*—Good and general rain has fallen in East Bengal, and some showers are also reported in North Bengal; but the rest of the Province has been without rain. The cultivation of the autumn crops is going on in East Bengal and parts of North Bengal; but over greater part of the Province is retarded for want of rain. The standing crops are also suffering in many districts from intense heat and want of moisture. The spring rice is being harvested, and the general outturn is expected to be below the average. In Behar the *cheena* will not be so good as was expected. The price of common rice is steadily rising all over the Province; of the affected districts in the Patna Division, Muzaffarpur reports 11 seers for the rupee, Chumparun 11½ seers, and Darbhanga 13½ seers. The pressure in the Chumparun district is said to be on the increase.

**North-Western Provinces and Oudh.**—*For week ending 8th May, 1889.*—Weather hot. Threshing of *rabi* crops in progress. Sugarcane being irrigated. Supplies sufficient. Prices generally steady. General condition of agricultural stock is satisfactory.

**Punjab.**—*For week ending 8th May, 1889.*—No rain during the week, except a slight fall at Rawalpindi. Prices rising in Amballa; falling in Ferozepur, Sialkot, Shahpur, and Peshawar; and stationary elsewhere. Harvesting of *rabi* crops nearly over. Threshing operations in progress. Crops are reported to be in good condition. Outturn good in Jullundur and below average in Amritsar. Wheat crop slightly suffered on account of high winds in Peshawar. Stock-cattle are reported healthy. Fodder sufficient, except in Sadr Station of Lahore.

**Central Provinces.**—*For week ending 8th May, 1889.*—Weather cloudy and hot. Crops all harvested. Fields being manured and ploughed for autumn sowings. Water-supply scarce in most districts. Prices generally steady.

**Burma.**—*For week ending 8th May, 1889.*—Rain fell in Akyab, Sandoway, Hanthawaddy, Pegu, Bassein, Thongwa, Thayetmyo, Moulmein, Amherst, Shwegyin, and Tavoy in Lower Burma. In Upper Burma rain fell in Mandalay, Bhamo, Myadoug, Shwebo, Yeu, Sagaing, Upper Chindwin, Lower Chindwin, Myingyan, Minbu, Magwe, Meiktila, Yamethin, and Pinyinana. Food-supply

sufficient. There is a rise in the price of paddy at Prome, Thongwa, Thayetmyo, and Moulmein, and a fall in Bassein and Henzada. In Upper Burma there is a rise in the price in Lower Chindwin and a fall in Shwebo and Magwe. In ten other districts the price remains the same as last week.

**Assam.**—*For week ending 8th May, 1889.*—Weather stormy. Sufficient rain in most districts. Condition and prospects of crops good, except in Garo Hills. Tea doing well.

**Mysore and Coorg.**—*For week ending 8th May, 1889.*—Rainfall fair in Kadur district, elsewhere slight. Standing crops good, except in parts of Tumkur district, where water is wanted. Outturn of crops harvested generally favourable. Prices slightly risen in Bangalore and Shimoga districts.

Prospects favourable in Coorg. Slight rain.

**Berar and Hyderabad.**—*For week ending 8th May, 1889.*—Threshing of *rabi* crops completed in Berar. Everywhere ploughing operations continue. Cattle healthy. Fodder and water scarce. Prices of grain increased in some districts.

No rain during the week in Hyderabad. *Rabi* crops suffering for want of water. Scarcity of fodder and drinking-water felt. Prices—wheat 11½, coarse rice 9½, white *juar* 18, yellow *juar* 20, and *tur* 16½ seers per current sicca rupee.

**Central India.**—*For week ending 8th May, 1889.*—No material change in condition of crops and weather since last report. Apprehensions still entertained of drought in neighbourhood of Neemuch.

**Rajputana.**—*For week ending 8th May, 1889.*—Outturn of harvest expected excellent in Kerowli. Agricultural stock good. Pasturage or fodder sufficient, except in Marwar, Kherwara, and Meywar. Prices rising in Meywar, Jhallawar, Bhurtpore, and Ulwar, and steady elsewhere.

**Nepal.**—*For week ending 2nd May, 1889.*—Slight rain. Weather hot. Rain wanted for sowing of Indian corn and rice.

E. C. BUCK,

Secretary to the Government of India.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. I OF 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total length open.	RECEIPTS FOR WEEK ENDING 7TH APRIL, 1889.		Total length open.	RECEIPTS FOR FIRST 6 DAYS OF APRIL 1889.		TOTAL RECEIPTS FROM 1ST TO 7TH APRIL, 1889.		TOTAL RECEIPTS FROM 1ST TO 6TH APRIL, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		<i>Rs.</i>	<i>Rs.</i>		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
27th April, 1889	East Indian	1,514	9,38,314	620	1,514	8,35,566	552	9,38,314	620	8,35,566	552	...	1,02,748
20th ditto	Rajputana-Malwa (a).	1,664	3,78,345	227	1,664	3,67,714	221	3,78,345	227	3,67,714	221	...	10,631
27th ditto	Patna-Gya.	57	9,294	162	57	11,324	199	9,294	162	11,324	199	2,030	...
20th ditto	Bengal-Nagpur (b)	186	44,725	240	186	45,812	156	44,725	240	45,812	156	1,087	...
27th ditto	Dildarnagar-Ghazipur	12	866	72	12	854	71	866	72	854	71	...	12
20th ditto	Mysore	140	10,204	73	140	8,693	40	10,204	73	8,693	40	...	1,511
20th ditto	Southern Mahratta (c)	850	80,343	95	850	66,804	78	80,343	95	66,804	78	...	13,539
20th ditto	Indian Midland	211	(d) 22,271	106	211	(e) 52,344	89	(d) 22,271	106	(e) 52,344	89	30,073	...
13th ditto	Villupuram-Dhar m a veram (Nellore Branch)	83	3,741	45	83	3,208	39	3,741	45	3,208	39	...	533
13th ditto	Bareilly-Pilibhit	30	1,568	44	30	1,635	45	1,568	44	1,635	45	67	...
	Lucknow-Sitapur-Sihramau	105	3,862	37	105	4,096	39	3,862	37	4,096	39	234	...
	<b>TOTAL</b>	<b>4,858</b>	<b>14,93,533</b>	<b>307</b>	<b>4,858</b>	<b>13,98,050</b>	<b>258</b>	<b>14,93,533</b>	<b>307</b>	<b>13,98,050</b>	<b>258</b>	<b>...</b>	<b>95,483</b>
	<i>State Lines worked by Government.</i>												
20th April, 1889	North-Western (f)	2,481	5,67,957	229	2,481	4,94,990	207	5,67,957	229	4,94,990	207	...	72,967
13th ditto	Oudh and Rohilkhand	693	1,49,846	216	693	1,20,622	187	1,49,846	216	1,20,622	187	...	20,224
20th ditto	Wardha Coal	45	18,739	416	45	21,166	470	18,739	416	21,166	470	2,427	...
20th ditto	Bengal Central	125	11,673	93	125	12,746	102	11,673	93	12,746	102	1,073	...
20th ditto	Eastern Bengal Railways (g)	673	1,40,876	209	673	1,47,600	219	1,40,876	209	1,47,600	219	6,724	...
20th ditto	Nalhati	27	2,133	78	27	1,402	52	2,133	78	1,402	52	...	731
20th ditto	Tirhoot	259	34,010	131	259	29,743	109	34,010	131	29,743	109	...	4,207
20th ditto	Burma	333	73,932	222	333	99,235	179	73,932	222	99,235	179	25,303	...
13th ditto	Jorhat	31	527	17	31	922	30	527	17	922	30	395	...
13th ditto	Charra-Companyganj.	7	121	17	7	45	6	121	17	45	6	...	76
	<b>TOTAL</b>	<b>4,674</b>	<b>9,99,814</b>	<b>214</b>	<b>4,674</b>	<b>9,37,471</b>	<b>195</b>	<b>9,99,814</b>	<b>214</b>	<b>9,37,471</b>	<b>195</b>	<b>...</b>	<b>62,343</b>
	<i>Lines worked by Guaranteed Companies.</i>												
20th April, 1889	Madras	840	1,60,628	191	840	1,44,576	172	1,60,628	191	1,44,576	172	...	16,052
13th ditto	South Indian	654	99,284	152	654	92,026	141	99,284	152	92,026	141	...	7,258
20th ditto	Great Indian Peninsular (h)	1,504	10,89,457	725	1,504	8,04,571	536	10,89,457	725	8,04,571	536	...	2,84,886
20th ditto	Bombay, Baroda and Central India	461	3,46,856	752	461	2,56,286	556	3,46,856	752	2,56,286	556	...	90,570
	<b>TOTAL</b>	<b>3,459</b>	<b>16,96,225</b>	<b>490</b>	<b>3,459</b>	<b>12,97,459</b>	<b>381</b>	<b>16,96,225</b>	<b>490</b>	<b>12,97,459</b>	<b>381</b>	<b>...</b>	<b>3,98,766</b>
	<b>GRAND TOTAL (GUARANTEED AND STATE)</b>	<b>12,991</b>	<b>41,89,572</b>	<b>322</b>	<b>12,991</b>	<b>36,32,980</b>	<b>266</b>	<b>41,89,572</b>	<b>322</b>	<b>36,32,980</b>	<b>266</b>	<b>...</b>	<b>5,56,592</b>
	<b>GROSS ESTIMATED EXPENSES</b>							<b>18,63,103</b>	<b>143</b>	<b>16,16,676</b>	<b>118</b>	<b>...</b>	<b>2,46,427</b>
	<b>NET RECEIPTS</b>							<b>23,26,469</b>	<b>179</b>	<b>20,16,304</b>	<b>148</b>	<b>...</b>	<b>3,10,165</b>
	<i>Assisted Companies.</i>												
27th April, 1889	Bengal and North-Western	376	38,619	99	376	38,657	103	38,619	99	38,657	103	38	...
27th ditto	Tarakeshwar	22	8,712	392	22	7,326	329	8,712	392	7,326	329	...	1,386
13th ditto	Rohilkhand-Kumaun	67	7,977	119	67	7,107	106	7,977	119	7,107	106	...	870
13th ditto	Dibru-Sadiya	78	8,506	109	78	7,544	97	8,506	109	7,544	97	...	962
	<b>TOTAL</b>	<b>543</b>	<b>63,814</b>	<b>118</b>	<b>543</b>	<b>60,634</b>	<b>112</b>	<b>63,814</b>	<b>118</b>	<b>60,634</b>	<b>112</b>	<b>...</b>	<b>3,180</b>
	<i>Native States.</i>												
20th April, 1889	The Nizam's (Guaranteed Company)	277	36,886	133	277	36,737	104	36,886	133	36,737	104	...	149
20th ditto	The Gaekwar's	59	4,348	74	59	2,160	37	4,348	74	2,160	37	...	2,188
20th ditto	The Gaekwar's Maharashtra-Vadnagar	21	1,266	60	21	857	32	1,266	60	857	32	...	409
20th ditto	Bhavnagar-Gondal-Junagar-Porbandar	193	33,796	175	193	33,120	127	33,796	175	33,120	127	...	676
20th ditto	Morvi	68	4,643	68	68	4,154	61	4,643	68	4,154	61	...	489
20th ditto	Jodhpore	124	7,243	58	124	7,114	57	7,243	58	7,114	57	...	129
	<b>TOTAL</b>	<b>742</b>	<b>88,182</b>	<b>119</b>	<b>742</b>	<b>84,142</b>	<b>94</b>	<b>88,182</b>	<b>119</b>	<b>84,142</b>	<b>94</b>	<b>...</b>	<b>4,040</b>

- (a) Includes the Cawnpore-Achnera State Railway.  
(b) Includes the Katni-Umaria State Railway.  
(c) Includes the Bellary-Kistna State Railway.  
(d) Includes the Sindia State Railway only.  
(e) Includes the Sindia and Bhopal-Itarsi Railways.

- (f) Includes the Amritsar-Pathankot and Rajpura-Patidla State Railways.  
(g) Includes the Northern Bengal, Dacca, Kaunia-Dharila, and Assam-Bihar State Railways.  
(h) Includes State Branch Lines worked by the Company.

SIMLA, 9th May, 1889.

M. C. BRACKENBURY, Major, R.E.,  
Officiating Deputy Secretary.



GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. II of 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest return received.	RAILWAYS.	Total length open.	RECEIPTS FOR WEEK ENDING 14TH APRIL, 1888.		Total length open.	RECEIPTS FOR WEEK ENDING 13TH APRIL, 1889.		TOTAL RECEIPTS FROM 1ST TO 14TH APRIL, 1888.		TOTAL RECEIPTS FROM 1ST TO 13TH APRIL, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies</i>		<i>Rs.</i>	<i>Rs.</i>		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
27th April, 1889	East Indian	1,514	9,76,169	645	1,514	9,16,430	605	19,14,483	632	17,51,996	579	...	1,62,487
20th ditto	Rajputana-Malwa (a)	1,664	4,04,283	243	1,664	4,02,000	296	7,82,628	235	8,59,714	278	77,686	...
27th ditto	Patna-Gya	57	10,694	187	57	10,866	190	19,988	175	22,190	194	2,202	...
20th ditto	Bengal-Nagpur (b)	186	47,300	254	293	65,511	224	92,025	247	1,11,323	295	19,298	...
27th ditto	Dildarnagar-Ghazipur	12	998	83	12	958	80	1,864	78	1,812	76	...	52
20th ditto	Mysore	140	9,788	70	219	12,862	59	19,967	71	21,555	49	1,588	...
20th ditto	Southern Mahratta (c)	850	68,687	81	857	85,356	100	1,87,784	110	1,52,160	89	...	35,624
20th ditto	Indian Midland	211	(a) 22,005	104	574	(e) 63,762	111	(d) 44,276	105	(e) 1,16,106	109	71,830	...
13th ditto	Villupuram-Dharmave- ram (Nellore Branch).	83	3,519	42	83	4,226	51	7,260	44	7,434	48	174	...
13th ditto	Bareilly-Pilibhit	36	1,808	53	36	2,281	63	3,466	48	3,916	54	450	...
13th ditto	Lucknow-Sitapur-Sih- ramau.	105	5,125	49	105	6,392	61	8,987	43	10,488	50	1,501	...
	<b>TOTAL</b>	<b>4,858</b>	<b>15,50,466</b>	<b>319</b>	<b>5,414</b>	<b>16,60,644</b>	<b>307</b>	<b>30,82,728</b>	<b>317</b>	<b>30,58,694</b>	<b>304</b>	...	<b>24,034</b>
	<i>State Lines worked by Government.</i>												
20th April, 1889	North-Western (f)	2,481	5,16,228	208	2,386	5,70,545	230	10,84,185	218	10,65,535	240	...	18,650
13th ditto	Oudh and Rohilkhand.	693	1,71,748	248	692	1,90,421	275	3,21,504	233	3,20,043	231	...	1,551
20th ditto	Wardha Coal	45	18,996	422	45	24,411	542	37,735	419	45,577	545	7,842	...
20th ditto	Bengal Central	125	10,543	84	125	11,620	93	22,216	89	24,366	97	2,150	...
20th ditto	Eastern Bengal Rail- ways (g)	673	1,25,048	186	673	1,48,980	222	2,65,024	198	2,96,580	220	30,656	...
20th ditto	Nalhati	27	1,849	68	27	1,537	56	3,982	73	3,172	58	...	810
20th ditto	Tirhoot	259	33,816	131	273	36,280	133	67,826	131	70,989	130	3,163	...
20th ditto	Burma	333	64,786	195	553	1,00,645	182	1,38,718	208	1,90,880	181	61,162	...
13th ditto	Jorhat	31	600	20	31	1,132	37	1,127	18	2,208	36	1,081	...
13th ditto	Cherra-Companyganj.	7	51	7	7	48	6	172	11	101	7	...	71
	<b>TOTAL</b>	<b>4,674</b>	<b>9,43,665</b>	<b>203</b>	<b>4,812</b>	<b>10,85,628</b>	<b>226</b>	<b>19,43,479</b>	<b>208</b>	<b>20,28,451</b>	<b>227</b>	<b>84,972</b>	...
	<i>Lines worked by Guar- anteed Companies.</i>												
20th April, 1889	Madras	840	1,49,323	178	840	1,71,717	204	3,09,951	184	3,16,293	203	6,342	...
13th ditto	South Indian	654	95,811	147	654	1,00,914	163	1,95,095	149	1,98,940	164	3,845	...
20th ditto	Great Indian Penin- sula (h)	1,504	11,45,771	762	1,447	10,19,465	705	22,35,228	743	18,24,036	679	4,11,192	...
20th ditto	Bombay, Baroda and Central India	461	3,24,555	704	461	3,51,000	761	6,71,411	728	6,07,286	709	...	64,125
	<b>TOTAL</b>	<b>3,459</b>	<b>17,15,460</b>	<b>496</b>	<b>3,402</b>	<b>16,49,096</b>	<b>485</b>	<b>34,11,685</b>	<b>493</b>	<b>29,46,555</b>	<b>466</b>	...	<b>4,65,130</b>
<b>GRAND TOTAL (GUARANTEED AND STATE)</b>			<b>12,991</b>	<b>42,09,591</b>	<b>324</b>	<b>13,028</b>	<b>43,95,368</b>	<b>323</b>	<b>84,37,892</b>	<b>324</b>	<b>80,33,700</b>	...	<b>4,04,192</b>
<b>GROSS ESTIMATED EXPENSES</b>			...	...	...	...	...	37,52,331	144	35,74,997	141	...	<b>1,77,334</b>
<b>NET RECEIPTS</b>			...	...	...	...	...	<b>46,85,561</b>	<b>180</b>	<b>44,58,703</b>	<b>176</b>	...	<b>2,26,858</b>
	<i>Assisted Companies.</i>												
27th April, 1889	Bengal and North- Western	376	44,635	110	376	64,330	171	83,254	111	1,02,687	147	19,733	...
27th ditto	Tirakeshwar	22	12,543	564	22	10,960	493	21,255	478	18,286	411	...	2,969
13th ditto	Rohilkhand-Kumaun	67	7,660	114	67	8,076	129	15,637	117	15,783	118	146	...
13th ditto	Dibru-Sadiya	78	8,866	113	78	9,426	121	17,312	111	16,970	109	...	342
	<b>TOTAL</b>	<b>543</b>	<b>73,644</b>	<b>136</b>	<b>543</b>	<b>93,392</b>	<b>172</b>	<b>1,37,458</b>	<b>127</b>	<b>1,54,026</b>	<b>153</b>	<b>16,568</b>	...
	<i>Native States.</i>												
20th April, 1889	The Nizam's (Guaran- teed Company)	277	34,439	124	354	46,506	131	71,324	129	83,245	127	11,921	...
20th ditto	The Gaekwar's	59	4,002	68	59	2,950	50	8,350	71	5,110	47	...	3,240
20th ditto	The Gaekwar's Meh- sana-Vadnagar	21	1,235	59	27	1,500	55	2,501	60	2,357	47	...	144
20th ditto	Bhavnagar-Gondal- Junagarh-Porbandar	103	28,102	146	260	42,410	163	61,898	160	75,530	156	13,632	...
20th ditto	Morvi	68	4,736	70	68	4,263	63	9,379	69	8,887	65	...	492
20th ditto	Jodhpore	124	8,495	68	124	8,300	67	15,648	63	15,414	67	...	234
	<b>TOTAL</b>	<b>742</b>	<b>80,919</b>	<b>109</b>	<b>892</b>	<b>1,05,929</b>	<b>118</b>	<b>1,69,100</b>	<b>114</b>	<b>1,90,543</b>	<b>115</b>	<b>21,443</b>	...

(a) Includes the Cawnpore-Achnera State Railway.

(b) Includes the Katni-Umaria State Railway.

(c) Includes the Bellary-Kistna State Railway.

(d) Includes the Sindia State Railway only.

(e) Includes the Sindia and Bhopal-Itarsi Railways.

(f) Includes the Amritsar-Pathankot and Rajpura-Patidla State Railways.

(g) Includes the Northern Bengal, Dacca, Kaunia-Dharila and Assam-Bohar State Railways.

(h) Includes State Branch Lines worked by the Company.

SIMLA, 9th May, 1889.

M. C. BRACKENBURY, Major, R.E.,

Officiating Deputy Secretary.



SUPPLEMENT TO  
**The Gazette of India.**

No. 20.]

SIMLA, SATURDAY, MAY 18, 1889.

**OFFICIAL PAPERS.**

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GOVERNMENT OF INDIA.

REVENUE AND AGRICULTURAL DEPARTMENT.

**Weekly Report on the State of the Season and prospects of the Crops.**

**Madras.**—*For week ending 11th May, 1889.*—No rain at Godavari, Nellore, Cuddapah, Bellary, Kurnool, Madras, Chingleput, and North Arcot; fair rainfall at Tinnevely, and slight elsewhere. Standing crops generally good, but suffering from want of water in Ganjam and Vizagapatam; wet crops withering in parts of Cuddapah, Anantapur, and Chingleput. Pasture deficient in Ganjam, Vizagapatam, Cuddapah, Bellary, Malabar, and in parts of North Arcot, Trichinopoly, Madura, Tinnevely, and Coimbatore. Prices rising in six districts, falling in five, and stationary in others; prices of rice and *cholum* rose in Ganjam. Labourers employed last day of the week—on Rushikulya works, 6,327; Gopulpore Canal, 4,472; and Taptapani Ghat Road, 589. General prospects favourable, except in Ganjam.

**Bombay.**—*For week ending 15th May, 1889.*—Rain in Southern Mahratta Country and Deccan and in parts of Karachi, Shikarpur, and Ratnagiri. Harvesting of late crops continues in Hyderabad; preparations for next season's crops progressing in most districts; and sowing in Karachi. Fodder scarce in Khandesh and Nasik and in parts of Karachi, Thana, Poona, Ahmednagar, Dharwar, Kathiawar, and Baroda.

**Bengal.**—*For week ending 14th May, 1889.*—Weather hot and dry. No rain during the week, except a few showers in East and North Bengal; rain generally much wanted for the cultivation of the autumn crops, which is delayed. Cultivation is only going on in East Bengal and parts of North Bengal, which have had fair rain of late. The standing crops are also in need of rain; in Behar the *cheena* has suffered much in the unirrigated tracts, and but a small

outturn is expected in Darbhanga, Muzaffarpur, and Chumparun. The spring rice is being harvested, and the outturn will be below the average. The price of rice has risen everywhere.

**North-Western Provinces and Oudh.**—*For week ending 15th May, 1889.*—No rain. Weather very hot. Threshing operations in progress. Sugarcane, cotton, tobacco, and indigo being watered. Supplies sufficient. Prices show a tendency to rise. The condition of agricultural stock generally satisfactory.

**Punjab.**—*For week ending 15th May, 1889.*—Slight rainfall in certain districts. Prices rising in Jullundur; falling in Sialkot, Shahpur, and Peshawar; stationary elsewhere. Harvesting and threshing of *rabi* still in progress, and ploughings for *kharif* are still going on. Sugarcane and cotton crops are in good condition, outturn of *rabi* from good to average. Stock-cattle are reported healthy. Fodder sufficient, except in Sadr Station of Lahore.

**Central Provinces.**—*For week ending 15th May, 1889.*—Weather cloudy and hot. Fields are being ploughed and manured for rainy weather crops. Water scarce almost everywhere. Fodder scarce in Raipur.

**Burma.**—*For week ending 11th May, 1889.*—Slight rain fell in Hanthawaddy, Tharrawaddy, Prome, Thongwa, Thayetmyo, Moulmein, Amherst, Shwegyin, Tavoy, and Mergui. In Upper Burma rain fell in Myadoun, Shwebo, Yeu, Sagaing, Kayaukse, and Lower Chindwin. In Lower Burma the price of paddy has risen in Tharrawaddy, Bassein, Henzada, and Thayetmyo, and a slight fall in price is noticeable in Prome. In Upper Burma the price has risen considerably in Bhamo, Shwebo, Lower Chindwin, and Yamethen, and fallen in Upper Chindwin. Food-supply is sufficient, but in Bhamo rain is much wanted.

**Assam.**—*For week ending 15th May, 1889.*—Weather stormy. Rainfall insufficient in Garo Hills, excessive in Sylhet and Nowgong, and sufficient elsewhere. Prospects of crops in general good. Tea doing well.

**Mysore and Coorg.**—*For week ending 15th May, 1889.*—Some rain in Kadur and Shimoga districts of Mysore. Wet crops in parts of Tumkur and Shimoga districts suffering from want of water. Elsewhere condition of crops generally good. Sugarcane planted in parts. Prospects favourable. Prices slightly risen in Kadur district.

Slight rain in Coorg during the week. Prospects good.

**Berar and Hyderabad.**—*For week ending 15th May, 1889.*—Preparations for *kharif* crops still going on in Berar. General condition of cattle good. No marked change in the prices of food-grains.

Slight rain in Hyderabad during the week. Reaping of hot-weather crops continues. Preparations for *kharif* sowings commenced. Scarcity of water and fodder felt almost everywhere. Prices stationary.

**Central India.**—*For week ending 15th May, 1889.*—No material change in condition of crops and weather since last report. Prices of food rising in Bundelkhand and Baghelkhand; elsewhere steady.

**Rajputana.**—*For week ending 15th May, 1889.*—Agricultural stock good. Pasturage or fodder sufficient, except in Marwar, Kherwara, Meywar, Dholepur, and parts of Sirohi. Prices rising in some places.

**Nepal.**—*For week ending 9th May, 1889.*—Slight rain and hail during the week. Weather comparatively cool. Price of rice has risen owing to damage of ripe wheat by hail. Sowing of Indian corn is in progress.

E. C. BUCK,

Secretary to the Government of India.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. III of 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total mean length open.	RECEIPTS FOR WEEK ENDING 21ST APRIL, 1889.		Total mean length open.	RECEIPTS FOR WEEK ENDING 20TH APRIL, 1889.		TOTAL RECEIPTS FROM 1ST TO 21ST APRIL, 1888.		TOTAL RECEIPTS FROM 1ST TO 20TH APRIL, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.	
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.			
	State Lines worked by Companies.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
25th May, 1889	East Indian	1,514	10,44,944	690	1,514	9,45,921	625	29,59,427	652	26,97,917	594	...	2,61,510	
25th April, 1889	Rajputana-Malwa (a).	1,664	4,16,329	250	1,664	5,00,000	300	11,98,957	240	13,59,714	286	1,60,757	...	
25th May, 1889	Patna-Gya.	57	11,342	198	57	9,880	173	31,330	183	32,070	187	740	...	
25th April, 1889	Bengal-Nagpur (b)	186	46,886	252	186	54,676	187	1,38,911	249	1,05,999	198	27,888	...	
25th May, 1889	Dildarnagar-Ghazipur	12	1,374	115	12	923	77	3,238	90	2,735	76	...	503	
25th April, 1889	Mysore	140	10,097	76	140	13,654	62	30,664	73	35,209	54	4,545	...	
25th ditto	Southern Mahratta (c)	850	79,833	94	857	94,973	111	2,67,617	105	2,47,133	96	...	20,484	
25th ditto	Indian Midland	211	(d) 24,346	115	588	(e) 68,915	117	(d) 68,622	108	(e) 1,85,021	110	1,16,399	...	
25th ditto	Villupuram-Dhar m a - veram (Nellore Branch)	83	4,169	50	83	4,261	51	11,429	46	11,931	50	502	...	
25th ditto	Bareilly-Pilibhit.	30	1,873	52	30	2,832	79	5,339	49	6,748	62	1,409	...	
25th ditto	Lucknow-Sitapur-Sihrāmau	105	5,613	53	105	7,697	78	14,601	46	18,185	58	3,584	...	
	TOTAL	4,858	16,47,406	339	5,428	17,03,732	314	47,30,135	325	47,62,662	307	32,527	...	
	State Lines worked by Government.													
25th April, 1889	North-Western (f)	2,481	4,91,436	198	2,386	5,68,591	238	15,75,621	212	16,34,126	239	58,505	...	
25th ditto	Oudh and Rohilkhand	693	1,97,442	285	692	1,80,615	201	5,19,036	251	5,00,658	241	...	18,378	
25th ditto	Wardha Coal	45	17,277	384	45	25,218	560	55,012	407	70,795	550	15,783	...	
25th ditto	Bengal Central	125	10,844	87	125	12,840	103	33,060	88	37,206	99	4,146	...	
25th ditto	Eastern Bengal Railways (g)	673	1,26,589	188	673	1,52,380	226	3,92,513	194	4,48,960	222	56,447	...	
25th ditto	Nalhati	27	1,593	58	27	1,478	54	5,575	68	4,650	57	...	925	
25th ditto	Tirhoot	259	44,371	171	273	35,957	132	1,12,197	144	1,06,946	131	...	5,251	
25th ditto	Burma	333	62,085	188	553	90,349	103	2,01,403	202	2,90,229	175	88,826	...	
25th ditto	Jorhat	31	1,070	35	31	1,249	40	2,197	24	3,303	37	1,106	...	
25th ditto	Cherra-Companyganj.	7	33	4	7	30	4	205	9	131	6	...	74	
	TOTAL	4,674	9,53,340	204	4,812	10,68,707	222	28,96,819	207	30,97,004	225	2,00,185	...	
	Lines worked by Guaranteed Companies.													
25th April, 1889	Madras	840	1,68,061	200	840	1,76,021	210	4,78,013	190	4,92,314	205	14,301	...	
25th ditto	South Indian	654	1,12,463	172	654	1,17,653	180	3,07,558	157	3,17,860	170	10,302	...	
25th ditto	Great Indian Peninsula (h)	1,504	12,02,165	799	1,447	10,39,787	719	34,37,393	762	28,63,823	693	...	5,73,570	
25th ditto	Bombay, Baroda and Central India	461	3,34,527	726	461	3,60,000	781	10,05,938	727	9,67,286	734	...	38,652	
	TOTAL	3,459	18,17,216	525	3,402	16,93,461	498	52,28,902	504	46,41,283	477	...	5,87,619	
GRAND TOTAL (GUARANTEED AND STATE)			12,991	44,17,962	340	13,642	44,65,900	327	1,28,55,836	330	1,25,00,949	321	...	3,54,907
GROSS ESTIMATED EXPENSES			...	...	...	...	...	57,16,999	147	55,62,922	143	...	...	1,34,077
NET RECEIPTS			...	...	...	...	...	71,38,857	183	69,38,027	178	...	...	2,00,830
	Assisted Companies.													
25th April, 1889	Bengal and North-Western	376	59,641	159	376	58,430	155	1,42,895	127	1,61,417	150	18,522	...	
25th May, 1889	Tirakeshwar	22	5,933	207	22	5,587	251	27,188	407	23,873	358	...	3,315	
25th April, 1889	Rohilkhand-Kumaun	67	9,400	141	67	9,040	135	25,097	123	24,823	124	...	274	
13th ditto	Dibru-Sadiya	...	(i)	...	...	(i)	...	(j) 17,312	111	(k) 16,970	109	...	342	
	TOTAL	465	73,034	161	465	73,057	157	2,12,492	130	2,27,083	146	14,591	...	
	Native States.													
25th April, 1889	The Nizam's (Guaranteed Company)	277	33,003	119	354	44,257	125	1,04,327	126	1,27,502	126	23,175	...	
25th ditto	The Gaekwar's	59	3,330	57	59	5,920	101	11,680	66	11,030	66	...	650	
25th ditto	The Gaekwar's Mahratta-Vadnagar	21	1,271	61	27	1,550	57	3,772	60	3,907	51	135	...	
25th ditto	Bhavnagar-Gondal-Junagarh-Portbandar	193	28,608	148	260	41,810	161	90,506	156	1,17,340	158	26,834	...	
25th ditto	Morvi	68	5,415	80	68	6,964	102	14,794	73	15,885	78	1,091	...	
25th ditto	Jodhpore	124	6,081	49	124	8,300	67	21,729	58	23,714	67	1,985	...	
	TOTAL	742	77,708	105	892	1,08,801	122	2,46,808	111	2,99,378	118	54,570	...	

(a) Includes the Cawnpore-Achnera State Railway.

(b) Includes the Katni-Umaria State Railway.

(c) Includes the Bellary-Kistna State Railway.

(d) Includes the Sindia State Railway only.

(e) Includes the Sindia and Bhopal-Itarsi Railways.

(f) Includes the Amritsar-Pathankot and Rajpura-Bhatinda State Railways.

(g) Includes the Northern Bengal, Dacca, Kaunia-Dharila, and Assam-Bohar State Railways.

(h) Includes State Branch Lines worked by the Company.

(i) Return not received.

(j) Total receipts from 1st to 14th April, 1888.

(k) Total receipts from 1st to 13th April, 1889.

M. C. BRACKENBURY, Major, R.E.,

Officiating Deputy Secretary.

SIMLA, 16th May, 1889.



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SUPPLEMENT TO  
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OFFICIAL PAPERS.

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

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[illegible]

a In sub-divisions retail prices of salt per rupee are :— Patnakhati 8 sers, Perozepore 9 sers, and Bhola 8 sers.  
 b At Cox's Bazar retail price of salt 8 sers per rupee.  
 c In sub-divisions retail prices of salt per rupee are :— Manickgunge 9 sers, Munshigunge 8-14 sers, and Naraingunge 10 sers.  
 d In sub-divisions retail prices of salt per rupee are :— Kishoregunge 8 sers, Attea 10 sers, Jamalpore 9-8 sers, Sherepore 8 sers, and Netrakona 8 sers.  
 e Retail price of salt at Bagichat 8 sers per rupee.  
 f In sub-divisions retail prices of salt per rupee are :— Baraset and Basirhat 9 sers, Diamond Harbour (at Kulpihat) 8 sers, Barrackpore 10 sers, and Dum-Dum 10 sers.  
 g In sub-divisions retail prices of salt per rupee are :— Chhatal 10-12 sers, Tumlook 8 sers, and Contai 9 sers.  
 h In sub-divisions retail prices of salt per rupee are :— Metherpore 10-8 sers, Chooadanga 10 sers, and Rangghat 10 sers.  
 i None in market.  
 j In sub-divisions retail prices of salt per rupee are :— Jhenida 9 sers, Magura 10 sers, Narail 9 sers, and Bongong 10 sers.  
 k In sub-divisions retail prices of salt per rupee are :— Culna 10 sers, Cutwa 9-15 sers, and Raneegunge 9-12 sers.  
 l At Setaigunge retail price of salt 10-8 sers per rupee.  
 m In Nowgong sub-division retail price of salt 9-9 sers per rupee.  
 n In Gaibanda sub-division retail price of salt 8 sers per rupee.  
 o In Thakurgaon sub-division retail price of salt 8 sers per rupee.  
 p At Fallacotta in Alipore sub-division retail price of salt 8 sers per rupee.  
 q At Siliguri retail price of salt 9 sers per rupee.  
 r At Bhadruck retail price of salt 8 sers per rupee.  
 s At Govindpore retail price of salt 9 sers per rupee.



## RETAIL PRICES FOR THE 1st HALF OF APRIL 1889—continued.

## QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHHOLU ( <i>Sorghum vulgare</i> ).		BAJRA OR CUMBU ( <i>Pennisetum typhoides</i> ).		MARU OR RAGI ( <i>Echinochloa crusgalli</i> ).		KANGNI OR RAKUN, ITALIAN MILLET ( <i>Setaria italica</i> ).		GRAM, CHENNA, CHOLA, KADALAY OR SIVAGA ( <i>Cicer arietinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARHAR OR TURK CADIAN PEA ( <i>Coronula indicus</i> ).		FIREWOOD.		SALT.	
	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.	Present fortnight.	Past fortnight.
<b>Bengal—continued.</b>	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
Behar, south—																										
Monaghyr	18 14	17 9	24 6	26 4	12 10	11 10	13 12	13 12	...	...	...	...	...	...	13 12	12 8	6 26	4	19 14	19 14	21 0	21 0	146 0	147 0	9 8	9 8
Gya	16 8	16 8	25 0	32 0	9 4	9 4	14 0	15 0	22 0	25 0	...	...	...	...	12 8	15 8	23 0	25 0	22 8	23 0	25 0	25 0	200 0	200 0	9 2	9 2
Patna	15 0	17 8	25 0	24 0	10 0	11 0	14 5	15 0	20 0	20 0	...	...	...	...	...	...	23 0	25 0	19 0	22 8	23 0	25 0	130 0	130 0	10 0	10 0
Shahabad	16 8	15 8	23 0	20 0	9 0	9 0	15 0	15 0	20 0	20 0	...	...	...	...	...	...	23 0	25 0	...	...	14 0	14 0	160 0	160 0	10 0	10 0
Behar, north—																										
Purneah	16 0	13 0	26 0	...	13 0	13 8	16 0	15 0	...	...	...	...	...	...	...	...	16 0	14 0	...	...	16 0	16 0	200 0	200 0	9 0	9 0
Bhagalpur	16 11	16 10	21 7	20 3	12 10	12 10	14 8	14 8	...	...	...	...	...	...	...	...	21 7	18 4	17 10	17 10	20 3	15 2	176 0	176 0	10 1	10 1
Durhunga	13 11	18 4	18 4	...	9 0	10 4	14 13	15 0	18 4	...	...	...	...	...	...	...	28 13	25 0	20 9	21 6	21 2	20 9	160 0	160 0	11 6	11 6
Muzaffarpore	14 0	15 0	25 0	23 0	10 0	10 0	12 8	13 0	...	...	...	...	...	...	...	...	20 0	24 0	18 0	20 0	22 0	22 0	160 0	160 0	10 0	10 0
Sarun	17 0	16 0	21 0	24 0	8 4	8 8	12 8	13 0	...	...	...	...	...	...	...	...	21 4	22 0	20 0	20 8	22 8	22 8	130 0	130 0	10 0	10 0
Champan	13 0	13 0	22 0	21 0	9 8	7 0	12 8	13 0	...	...	...	...	...	...	...	...	17 8	17 0	18 0	20 0	22 0	22 0	160 0	160 0	9 4	9 4
<b>N.-W. Provinces—</b>																										
<b>Eastern—</b>																										
Mirzapur	15 0	15 0	20 0	23 0	7 0	7 0	13 0	13 0	17 0	18 0	16 0	16 0	15 0	15 0	12 0	13 8	20 0	22 0	18 0	18 0	22 0	23 0	100 0	100 0	10 0	10 0
Benares	14 13	14 6	18 7	19 4	9 12	9 3	13 9	13 9	17 14	20 10	16 4	15 11	16 13	15 11	13 8	12 8	18 7	19 0	19 12	21 2	20 1	20 10	120 0	120 0	10 6	10 6
Ghazipur	16 1	16 1	20 9	16 12	7 1	7 1	12 14	14 0	18 0	17 6	16 12	16 12	20 9	20 10	15 7	15 7	21 14	18 0	18 14	18 0	21 4	21 4	154 0	154 0	10 10	10 10
Jaunpur	14 0	15 0	16 8	16 8	7 0	7 0	14 0	14 0	...	...	...	...	...	...	...	...	...	...	19 0	22 0	21 0	21 0	140 0	140 0	8 8	8 8
Allahabad	15 0	14 8	21 0	21 0	8 0	8 0	11 8	11 8	18 0	18 0	16 0	16 0	...	...	...	...	21 0	21 8	16 0	16 8	19 8	19 0	120 0	120 0	10 0	10 0
<b>Central—</b>																										
Banda	17 4	18 0	22 8	23 8	8 0	8 0	12 0	12 0	...	...	...	...	...	...	...	...	23 0	25 8	...	...	16 0	18 0	160 0	160 0	10 8	10 8
Fatehpur	15 8	15 8	21 8	21 8	11 8	12 0	12 0	12 1	...	...	...	...	...	...	...	...	21 0	21 8	...	...	27 0	27 8	160 0	160 0	10 8	10 8
Hamirpur	18 0	18 6	24 2	24 11	9 0	9 0	11 8	12 1	...	...	...	...	...	...	...	...	21 11	26 7	...	...	34 0	34 0	140 0	140 0	11 4	11 4
Jalaun	18 0	19 0	24 0	24 0	9 0	9 0	10 0	10 0	18 0	18 0	17 0	17 0	...	...	...	...	24 0	24 0	18 0	18 0	30 0	30 0	140 0	140 0	11 0	11 0
Cannore	17 8	19 12	24 0	24 0	9 0	9 0	13 0	13 0	24 8	24 8	21 0	22 8	20 0	20 0	16 0	16 0	24 0	24 0	30 0	30 0	27 0	27 0	150 0	150 0	12 0	12 0
Etawah	19 8	19 2	25 8	25 8	7 0	7 0	15 0	15 0	19 8	19 8	19 8	19 8	20 0	20 0	20 0	20 0	24 8	24 8	25 0	25 0	25 8	25 8	120 0	120 0	11 0	11 0
Farrukhabad	16 8	16 12	24 8	26 8	6 8	6 8	10 8	10 8	...	...	...	...	...	...	...	...	24 8	24 8	...	...	25 0	25 0	160 0	160 0	11 0	11 0
Mainpuri	19 8	19 2	28 8	25 6	4 8	4 8	12 0	14 8	...	...	...	...	...	...	...	...	26 12	23 8	...	...	27 0	28 0	160 0	160 0	11 0	11 0
Etah	19 8	19 11	30 0	30 0	7 8	7 8	13 0	14 0	...	...	...	...	...	...	...	...	24 0	24 0	...	...	19 8	18 4	160 0	160 0	11 4	11 4
<b>Western—</b>																										
Lalitpur	17 4	17 14	24 0	20 0	9 0	9 0	10 8	11 0	21 0	21 0	15 0	14 0	20 0	20 0	15 0	15 0	21 0	21 0	21 0	20 0	13 0	13 0	160 0	160 0	10 0	10 0
Jhansi	17 0	17 0	23 8	23 8	5 0	5 0	9 0	9 0	22 0	22 0	20 12	18 2	...	...	...	...	22 15	23 1	...	...	15 0	15 0	180 0	180 0	10 8	10 8
Agra	16 0	17 0	26 0	27 0	8 0	8 0	12 0	12 0	20 0	20 0	20 8	24 0	...	...	...	...	26 0	26 0	29 0	29 0	25 0	25 0	140 0	140 0	12 0	12 0
Muttra	17 12	18 8	28 4	28 4	5 8	5 8	10 8	10 8	22 0	22 0	20 8	24 0	...	...	...	...	28 8	28 8	30 0	30 0	28 8	25 0	150 0	150 0	12 0	12 0
Aligarh	18 0	19 14	30 0	30 8	7 0	7 0	11 0	11 0	22 0	22 0	21 0	23 0	...	...	...	...	28 0	28 0	33 0	33 0	17 0	18 0	130 0	130 0	12 0	12 0
Bulandshahr	18 0	19 14	30 0	30 8	7 0	7 0	11 0	11 0	22 0	22 0	21 0	23 0	...	...	...	...	28 0	28 0	33 0	33 0	17 0	18 0	130 0	130 0	12 0	12 0
Meerut	17 0	19 0	29 0	27 8	6 0	6 0	13 0	13 0	26 0	26 0	20 0	20 0	14 0	14 0	14 0	14 0	25 0	26 0	34 0	30 0	22 0	22 0	100 0	100 0	11 4	11 4
<b>Sub-montane—</b>																										
Balla	14 4	16 12	20 8	21 14	9 8	10 4	14 8	14 12	18 0	18 0	...	...	...	...	...	...	23 12	25 12	19 4	18 0	20 10	20 10	155 0	155 0	10 4	10 4
Azamgarh	14 12	14 12	20 0	17 0	10 5	10 5	12 8	13 4	...	...	...	...	...	...	...	...	19 3	...	25 1	23 10	16 4	15 8	177 8	177 8	9 13	9 13
Gorakhpur	13 2	14 8	20 13	19 0	9 1	9 1	12 12	13 5	...	...	...	...	...	...	...	...	18 12	20 13	...	...	22 9	20 4	140 0	140 0	10 15	10 15
Basti	18 8	18 0	24 0	23 0	...	...	23 0	23 0	16 0	16 0	...	...	...	...	...	...	24 0	24 0	20 0	20 0	21 0	21 0	140 0	140 0	10 0	10 0
Shahjahanpur	19 8	19 8	30 0	30 8	8 8	8 8	14 0	14 0	...	...	...	...	...	...	...	...	26 0	26 0	...	...	26 0	26 0	160 0	160 0	11 0	11 0
Pildan	19 12	18 8	29 0	30 8	6 0	6 0	12 0	12 0	...	...	...	...	...	...	...	...	28 0	28 0	...	...	24 0	24 0	192 0	192 0	11 4	11 4
Fateht	17 8	17 8	25 0	25 0	12 8	12 8	13 12	13 12	26 0	26 0	20 0	20 0	...	...	...	...	23 0	23 0	20 0	20 0	23 0	23 0	160 0	160 0	10 8	10 8



## RETAIL PRICES FOR THE 1st HALF OF APRIL 1889—continued.

QUANTITIES PER RUPEE IN SEKS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU (Sorghum vulgare).		BAJRA OR CUMBU (Pennisetum typhoides).		MARUA OR RAGI (Eleusine indica).		KANGNI OR ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA (Cicer arietinum).		MAIZE (Zea Mays).		ARRAR OR THUR CADIAN BEA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
<b>Punjab—</b>																										
<b>Southern—</b>																										
Hissar . . . . .	20 0	20 0	28 0	28 0	10 0	10 0	10 0	10 0	28 0	28 0	25 0	22 0	1 0	1 0	16 0	16 0	26 0	26 0	18 0	18 0	1 0	1 0	85 0	85 0	11 12	11 8
Ferozepore . . . . .	20 0	22 0	38 0	30 0	9 0	10 0	10 0	10 0	28 0	28 0	15 0	20 0	1 0	1 0	26 0	26 0	28 0	28 0	30 0	30 0	11 0	11 0	100 0	100 0	13 4	13 4
Montgomery . . . . .	20 0	20 0	28 0	28 0	10 0	10 0	10 0	10 0	28 0	28 0	17 0	20 0	1 0	1 0	26 0	26 0	25 0	25 0	28 0	28 0	12 0	12 0	200 0	200 0	11 0	11 0
<b>Central—</b>																										
Gurgaon . . . . .	21 0	20 0	30 0	28 0	11 0	11 0	11 0	11 0	28 0	28 0	24 0	24 0	1 0	1 0	14 0	13 0	20 0	20 0	20 0	20 0	16 0	16 0	130 0	130 0	11 0	11 0
Delhi . . . . .	18 0	20 0	28 0	30 0	11 0	11 0	11 0	11 0	24 0	24 0	20 0	20 0	1 0	1 0	15 0	16 0	29 0	28 0	16 0	16 0	25 0	22 0	80 0	80 0	11 0	11 0
Rohtak . . . . .	19 0	20 0	28 0	25 0	11 0	11 0	11 0	11 0	29 0	29 0	24 0	24 0	1 0	1 0	15 0	16 0	29 0	28 0	16 0	16 0	20 0	20 0	120 0	120 0	11 0	11 0
Karnal . . . . .	19 0	21 0	32 0	30 0	11 0	11 0	11 0	11 0	27 0	27 0	18 0	18 0	1 0	1 0	18 0	18 0	31 0	31 0	35 0	35 0	20 0	20 0	120 0	120 0	10 8	10 8
Lahore . . . . .	19 0	19 0	33 0	33 0	9 0	9 0	9 0	9 0	30 0	32 0	18 0	18 0	1 0	1 0	20 0	20 0	27 0	27 0	29 0	27 0	12 0	12 0	95 0	95 0	12 0	12 0
<b>Sub-montane—</b>																										
Umballa . . . . .	24 0	23 0	28 0	29 0	11 0	12 0	12 0	12 0	27 0	27 0	16 0	16 0	1 0	1 0	10 0	10 0	29 0	29 0	32 0	32 0	20 0	19 0	130 0	130 0	12 0	12 8
Ludhiana . . . . .	24 0	25 0	40 0	40 0	8 0	8 0	8 0	8 0	30 0	30 0	22 0	22 0	1 0	1 0	21 0	20 0	29 0	29 0	34 0	34 0	13 0	14 0	110 0	110 0	12 8	12 8
Jullundur . . . . .	23 0	22 0	40 0	32 0	12 0	12 0	12 0	12 0	29 0	29 0	18 0	18 0	1 0	1 0	20 0	20 0	25 0	25 0	33 0	33 0	17 0	18 0	100 0	100 0	13 0	13 0
Hoshiarpur . . . . .	24 0	24 0	32 0	30 0	13 0	13 0	13 0	13 0	23 0	23 0	14 0	14 0	1 0	1 0	16 0	16 0	22 0	22 0	24 0	24 0	10 0	10 0	120 0	120 0	13 0	13 0
Gurdaspur . . . . .	20 0	20 0	26 0	26 0	10 0	11 0	11 0	11 0	26 0	26 0	19 0	18 0	1 0	1 0	24 0	24 0	25 0	25 0	20 0	20 0	10 0	10 0	90 0	90 0	14 0	14 0
Amritsar . . . . .	22 0	22 0	29 0	29 0	9 0	9 0	9 0	9 0	16 0	16 0	14 0	14 0	1 0	1 0	8 0	8 0	17 0	17 0	19 0	19 0	10 0	10 0	65 0	65 0	8 8	9 0
<b>Hills—</b>																										
Simla . . . . .	14 0	15 0	1 0	1 0	12 0	12 0	12 0	12 0	16 0	16 0	10 0	10 0	1 0	1 0	8 0	8 0	20 0	20 0	22 0	22 0	10 0	10 0	100 0	100 0	10 0	10 0
Kangra . . . . .	15 0	14 0	20 0	18 0	11 0	12 0	12 0	12 0	27 0	27 0	22 0	22 0	1 0	1 0	20 0	20 0	25 0	25 0	23 0	23 0	13 0	13 0	160 0	160 0	13 0	13 0
<b>North-western—</b>																										
Sialkote . . . . .	19 0	19 0	30 0	32 0	9 0	9 0	9 0	9 0	26 0	26 0	22 0	22 0	1 0	1 0	20 0	20 0	28 0	28 0	25 0	25 0	13 0	13 0	160 0	160 0	13 0	13 0
Gujranwala . . . . .	20 0	20 0	38 0	35 0	10 0	10 0	10 0	10 0	25 0	25 0	21 0	21 0	1 0	1 0	12 0	12 0	25 0	25 0	23 0	23 0	10 0	10 0	85 0	85 0	14 0	14 0
Gujrat . . . . .	21 0	22 0	34 0	34 0	10 0	10 0	10 0	10 0	26 0	26 0	22 0	22 0	1 0	1 0	12 0	12 0	25 0	25 0	23 0	23 0	10 0	10 0	160 0	160 0	14 0	14 0
Jhelum . . . . .	20 0	19 0	32 0	29 0	10 0	10 0	10 0	10 0	23 0	23 0	20 0	20 0	1 0	1 0	12 0	12 0	25 0	25 0	23 0	23 0	10 0	10 0	160 0	160 0	14 0	14 0
Rawalpindi . . . . .	17 0	18 0	30 0	32 0	10 0	10 0	10 0	10 0	27 0	27 0	20 0	20 0	1 0	1 0	12 0	12 0	25 0	25 0	23 0	23 0	10 0	10 0	160 0	160 0	14 0	14 0
Hazara . . . . .	17 0	17 0	23 0	24 0	10 0	10 0	10 0	10 0	25 0	25 0	16 0	15 0	1 0	1 0	12 0	12 0	21 0	21 0	20 0	20 0	10 0	10 0	100 0	100 0	11 0	11 0
Peshawar . . . . .	18 0	18 0	35 0	36 0	11 0	11 0	11 0	11 0	27 0	27 0	15 0	15 0	1 0	1 0	16 0	16 0	24 0	24 0	20 0	20 0	10 0	10 0	112 0	112 0	40 0	41 0
Kohat . . . . .	16 0	16 0	26 0	26 0	11 0	11 0	11 0	11 0	16 0	16 0	15 0	15 0	1 0	1 0	16 0	16 0	24 0	24 0	20 0	20 0	10 0	10 0	125 0	125 0	38 0	38 0
<b>Western—</b>																										
Shahpur . . . . .	22 0	21 0	40 0	36 0	10 0	10 0	10 0	10 0	34 0	34 0	30 0	28 0	1 0	1 0	20 0	20 0	31 0	31 0	24 0	24 0	10 0	10 0	240 0	240 0	13 0	13 0
Jhang . . . . .	24 0	23 0	32 0	33 0	10 0	10 0	10 0	10 0	24 0	24 0	16 0	12 0	1 0	1 0	22 0	22 0	20 0	20 0	20 0	20 0	10 0	10 0	240 0	240 0	13 0	13 0
Mooltan . . . . .	17 0	17 0	27 0	30 0	10 0	10 0	10 0	10 0	26 0	26 0	19 0	18 0	1 0	1 0	24 0	24 0	21 0	21 0	24 0	24 0	10 0	10 0	100 0	100 0	13 0	13 0
Bannu . . . . .	18 0	18 0	37 0	32 0	10 0	10 0	10 0	10 0	24 0	24 0	20 0	20 0	1 0	1 0	24 0	24 0	26 0	26 0	23 0	23 0	10 0	10 0	60 0	60 0	40 0	40 0
D. I. Khan . . . . .	19 0	20 0	43 0	30 0	12 0	12 0	12 0	12 0	25 0	25 0	26 0	26 0	1 0	1 0	24 0	24 0	21 0	21 0	17 0	17 0	14 0	14 0	112 0	112 0	40 0	42 0
Muzaffargarh . . . . .	20 0	20 0	27 0	26 0	12 0	13 0	13 0	13 0	20 0	20 0	20 0	20 0	1 0	1 0	24 0	24 0	21 0	21 0	17 0	17 0	11 0	11 0	110 0	110 0	12 0	12 0
D. G. Khan . . . . .	17 0	18 0	26 0	26 0	9 0	9 0	9 0	9 0	25 0	25 0	20 0	20 0	1 0	1 0	19 0	19 0	19 0	19 0	21 0	21 0	10 0	10 0	175 0	175 0	27 8	27 8
<b>Sind and Baluchistan—</b>																										
Karachi . . . . .	11 8	12 0	17 0	18 0	8 0	8 0	8 0	8 0	16 0	16 0	13 0	14 0	1 0	1 0	1 0	1 0	18 0	17 0	14 0	14 0	7 0	7 0	90 0	90 0	14 0	14 0
Hyderabad (Gidu Bandar) . . . . .	12 8	14 8	18 0	18 0	7 8	7 8	7 8	7 8	17 8	17 8	15 0	14 8	1 0	1 0	1 0	1 0	15 8	15 8	14 0	14 0	11 0	11 0	160 0	160 0	11 0	11 0
Thar and Parkar (Umarkot) . . . . .	13 0	13 0	18 0	18 0	9 0	9 0	9 0	9 0	18 0	18 0	15 0	12 0	1 0	1 0	1 0	1 0	18 0	18 0	14 0	14 0	11 0	11 0	160 0	160 0	12 0	12 0
Sukkur . . . . .	16 0	15 0	20 0	20 0	10 0	10 0	10 0	10 0	22 0	22 0	19 0	20 8	1 0	1 0	1 0	1 0	18 8	19 8	14 0	14 0	11 8	11 8	120 0	120 0	12 8	12 8
Shikarpur . . . . .	12 0	13 0	17 8	18 8	8 0	8 0	8 0	8 0	20 0	20 0	20 0	20 0	1 0	1 0	1 0	1 0	15 0	15 0	14 0	14 0	10 0	10 0	140 0	140 0	11 8	11 8
Upper Sind Frontier . . . . .	13 8	14 0	19 8	16 0	8 0	8 0	8 0	8 0	22 0	22 0	20 0	21 0	1 0	1 0	1 0	1 0	20 0	19 0	14 0	14 0	10 0	10 0	160 0	160 0	11 0	11 0
Quetta . . . . .	13 10	14 0	15 0	15 0	5 0	5 0	5 0	5 0	16 0	16 0	20 0	21 0	1 0	1 0	1 0	1 0	14 4	13 0	15 0	15 0	10 0	10 0	120 0	120 0	11 0	11 0





## RETAIL PRICES FOR THE 1st HALF OF APRIL 1889—concluded.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM ( <i>Sorghum vulgare</i> ).		BAJRA OR CUMBU ( <i>Pennisetum typhoides</i> ).		MARUA OR RAGI ( <i>Echinochloa crus-galli</i> ).		KANGNI OR KAKUN, ITALIAN MILLET ( <i>Setaria italica</i> ).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA ( <i>Cicer arietinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARRAR OR THIR CADIAN PEA ( <i>Cajanus indicus</i> ).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
<b>Madras—</b>																										
Malabar Coast—																										
Malabar . . . . .	8 10	8 10	...	...	11 13	12 3	12 10	13 0	...	...	...	...	20 6	20 6	...	...	...	...	...	...	...	...	136 2	136 2	11 11	11 11
S. Canara . . . . .	8 8	8 8	...	...	11 14	12 10	12 13	13 11	...	...	...	...	31 13	31 13	...	...	...	...	...	...	...	...	128 13	128 13	13 5	13 5
<b>South, central—</b>																										
Combatore . . . . .	12 5	11 8	...	...	12 10	13 0	13 10	14 0	21 11	21 11	23 13	23 13	26 3	26 3	...	...	...	...	...	...	...	...	133 10	133 10	11 11	11 11
Nilgiris . . . . .	9 14	9 14	...	...	9 10	9 10	10 6	11 3	20 0	20 0	15 6	16 13	20 3	20 14	...	...	...	...	...	...	...	...	161 13	161 13	10 2	10 2
Salem . . . . .	10 3	10 3	...	...	11 13	11 13	13 11	13 11	25 0	25 0	22 2	22 2	30 13	30 13	...	...	...	...	...	...	...	...	186 10	186 10	13 8	13 8
<b>Central—</b>																										
Bellary . . . . .	13 0	13 6	...	...	12 5	12 13	13 8	14 0	20 10	20 14	21 3	20 11	33 0	33 0	...	...	...	...	...	...	...	...	97 3	97 3	11 14	11 14
Anantapur . . . . .	11 8	11 8	...	...	13 6	13 6	14 0	14 0	31 6	31 6	25 6	25 6	32 0	32 0	...	...	...	...	...	...	...	...	155 8	155 8	11 5	11 5
Cuddapah . . . . .	12 8	14 0	...	...	10 11	12 0	12 2	12 8	22 2	22 2	29 0	27 14	30 8	30 8	...	...	...	...	...	...	...	...	140 0	140 0	12 10	12 10
Kurnool . . . . .	11 6	11 6	...	...	11 6	11 6	12 3	12 3	24 5	24 5	21 5	21 5	...	...	...	...	...	...	...	...	...	...	142 14	142 14	11 5	11 5
<b>East Coast, north—</b>																										
Ganjam . . . . .	10 5	10 6	...	...	10 0	9 13	10 6	10 6	...	...	...	...	20 2	15 10	...	...	...	...	...	...	...	...	264 6	264 6	12 0	12 3
Vizakapattam . . . . .	12 0	12 0	...	...	9 0	9 0	10 3	10 3	20 8	20 8	19 13	19 13	18 3	18 3	...	...	...	...	...	...	...	...	116 10	116 10	11 11	11 11
Godavari . . . . .	11 11	11 11	...	...	13 6	14 6	14 8	15 8	25 0	24 0	21 2	21 2	22 13	21 13	...	...	...	...	...	...	...	...	243 0	243 0	12 0	12 0
<b>East Coast, central—</b>																										
Kistna . . . . .	10 6	10 6	...	...	13 2	13 11	13 13	14 5	21 2	22 2	...	...	23 13	23 13	...	...	...	...	...	...	...	...	170 2	170 2	13 3	13 3
Nellore . . . . .	9 14	10 6	...	...	11 14	12 14	13 0	14 0	23 0	23 0	21 13	21 13	26 6	26 6	...	...	...	...	...	...	...	...	93 5	93 5	11 11	11 11
<b>East Coast, south—</b>																										
Madras . . . . .	10 10	10 10	...	...	10 5	11 10	13 6	13 6	...	...	...	...	27 11	27 11	...	...	...	...	...	...	...	...	89 14	89 14	12 5	12 5
Chingleput . . . . .	9 6	9 6	...	...	12 3	13 8	15 2	15 2	...	...	21 2	21 2	34 3	34 3	...	...	...	...	...	...	...	...	122 8	122 8	11 14	11 14
N. Arcot . . . . .	7 13	7 13	...	...	12 3	13 10	13 10	13 10	...	...	23 2	24 10	23 14	25 6	...	...	...	...	...	...	...	...	194 6	194 6	11 5	11 5
S. Arcot . . . . .	8 2	8 2	...	...	14 14	15 13	15 13	15 13	...	...	23 14	23 14	26 6	26 6	...	...	...	...	...	...	...	...	209 0	209 0	11 11	11 11
Tanjore . . . . .	8 14	8 14	...	...	12 3	12 10	12 11	13 6	21 0	21 0	20 5	20 5	24 3	23 10	...	...	...	...	...	...	...	...	166 3	166 3	12 14	12 14
Tritchinopoly . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143 6	143 6	12 3	12 3
<b>Southern—</b>																										
Tinnevely . . . . .	8 14	8 14	...	...	13 2	13 2	13 10	13 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53 5	53 5	14 13	14 13
Madura . . . . .	10 2	10 14	...	...	13 14	13 14	14 13	14 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	136 2	140 14	13 10	13 10
<b>Mysore—</b>																										
Mysore . . . . .	10 0	10 0	10 0	10 8	10 8	11 0	12 0	12 0	29 0	29 0	30 0	28 0	29 0	29 0	24 0	24 0	12 0	12 0	...	...	...	...	96 0	102 0	9 0	8 8
Bangalore . . . . .	10 8	10 8	11 0	11 8	10 8	10 8	11 8	11 8	23 0	24 0	...	...	34 0	34 0	...	...	11 8	13 0	...	...	...	...	96 0	96 0	9 0	9 8
Kolar . . . . .	10 0	10 0	9 0	9 0	10 0	10 0	13 0	13 0	26 0	26 0	...	...	41 0	40 0	...	...	15 0	15 0	...	...	...	...	150 0	144 0	8 8	9 0
Tumkur . . . . .	11 0	11 0	11 0	11 0	12 0	12 0	13 0	13 0	...	...	...	...	48 0	44 0	...	...	16 0	16 0	...	...	...	...	340 0	340 0	9 0	9 0
Hassan . . . . .	...	...	11 0	11 0	12 0	12 8	14 0	15 0	...	...	...	...	40 0	42 0	...	...	14 0	14 0	...	...	...	...	96 0	96 0	9 0	9 0
Kadur . . . . .	10 0	10 0	11 0	11 0	16 0	16 0	18 0	18 0	...	...	...	...	48 0	48 0	...	...	15 0	15 0	...	...	...	...	320 0	320 0	9 0	9 0
Shimoga . . . . .	12 10	12 10	...	...	12 10	12 10	13 10	15 12	33 10	29 6	...	...	43 0	46 3	...	...	16 13	18 14	...	...	...	...	480 0	480 0	8 6	8 6
Chitaldrug . . . . .	13 0	13 0	15 0	15 0	11 0	11 0	13 0	13 0	48 0	48 0	32 0	32 0	55 0	55 0	70 0	70 0	15 0	16 0	...	...	...	...	320 0	320 0	9 0	9 0
<b>Coorg—</b>																										
Coorg . . . . .	9 8	9 0	8 8	8 0	14 8	13 0	15 8	16 0	...	...	...	...	36 0	35 0	...	...	23 8	24 0	...	...	...	...	110 0	110 0	10 8	10 8
<b>Aden . . . . .</b>	8 0	8 0	...	...	6 3	6 3	8 0	8 0	10 3	10 3	9 4	9 4	...	...	...	...	9 4	9 4	...	...	...	...	65 5	65 5	32 0	32 0

• Not sold.

GOVERNMENT OF INDIA.  
DEPARTMENT OF FINANCE AND COMMERCE.

*Comparative Statement of the Net Indian Sea and Land Customs Revenue (excluding Salt Revenue) for the first month of the official year 1889-90, and of the  
eighteen preceding years.  
(In Thousands of Rupees.)*

FOR THE MONTH OF APRIL.																										
YEAR.	BENGAL.				BOMBAY.				SINDH.				MAHRAS.				BURMA.				TOTAL BRITISH INDIA.					YEAR.
	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Revenue.			
1871-72	92	5,56	1,70	8,18	89	2,13	49	3,51	10	5	11	26	1,02	1,65	2,93	10	40	3,98	4,48	2,27	9,16	11,43	7,93	19,36		
1872-73	96	5,33	2,04	8,33	44	3,05	53	4,02	5	8	37	50	1,19	1,43	2,94	35	47	4,00	4,82	2,12	10,12	12,24	8,37	20,61		
1873-74	85	4,62	1,27	6,74	44	2,46	46	3,36	6	3	12	21	92	1,24	2,56	37	46	6,31	7,14	2,12	8,40	10,61	9,40	20,01		
1874-75	86	5,04	1,26	7,16	50	1,95	50	2,65	10	3	10	23	1,24	98	2,48	38	67	4,69	5,74	2,10	8,63	10,73	7,53	18,26		
1875-76	98	7,18	1,58	9,74	66	2,79	1,10	4,55	15	12	32	59	1,24	1,22	2,77	39	40	7,12	7,91	2,40	11,73	14,22	11,34	25,56		
1876-77	1,06	5,65	63	7,34	55	2,83	17	3,55	10	3	4	17	1,03	62	2,13	48	40	4,88	5,76	2,67	9,04	12,67	6,34	18,95		
1877-78	1,19	5,61	1,13	7,93	92	4,11	20	5,23	24	8	7	39	81	21	1,59	52	51	4,64	5,67	3,44	11,12	14,56	6,25	20,81		
1878-79	1,16	6,43	84	8,43	82	4,27	28	5,37	22	5	4	31	89	44	1,90	90	65	5,13	6,68	3,67	12,29	15,96	6,73	22,69		
1879-80	90	6,13	76	7,79	1,01	3,47	27	4,75	21	4	4	29	71	37	1,48	73	48	6,74	7,95	3,25	10,83	14,08	8,18	22,26		
1880-81	1,27	4,42	50	6,19	97	4,35	29	5,61	51	7	4	62	92	92	2,33	52	62	5,94	7,08	3,76	10,38	14,14	7,69	21,83		
1881-82	1,19	4,60	71	6,50	96	3,78	35	5,09	58	9	6	73	81	84	2,04	74	73	5,83	7,30	3,86	10,01	13,87	7,79	21,66		
1882-83	1,24	—2°	71	1,93	1,01	—24°	29	1,06	36	...	9	45	39	...	43	82	83	2	7,75	3,83	—24°	3,59	9,27	12,86		
1883-84	1,25	—1°	1,60	2,84	1,05	5	15	1,25	53	...	6	59	46	...	57	1,03	87	1	7,89	4,16	5	4,21	10,27	14,48		
1884-85	1,13	5	75	1,93	1,09	7	27	1,43	42	2	8	52	34	77	1,13	83	3	6,55	7,41	3,84	19	4,00	8,42	12,42		
1885-86	99	—1°	1,20	2,18	1,04	7	10	1,21	37	...	9	46	39	...	23	62	66	2	7,58	3,45	8	3,53	9,20	12,73		
1886-87	1,13	1	1,06	2,20	99	7	21	1,27	36	1	10	47	55	1	40	96	91	—°	6,97	5,04	8	4,02	8,74	12,76		
1887-88	1,08	3	96	2,07	1,25	8	26	1,59	62	1	9	72	85	...	45	1,30	1,38	—4°	7,42	5,18	8	5,26	9,18	14,44		
1888-89	1,17	32	1,36	2,85	1,43	44	21	2,08	53	1	10	64	78	15	46	1,39	99	3	4,39	4,90	95	5,85	6,52	12,37		
1889-90	1,14	55	1,33	3,02	1,34	62	27	2,23	60	8	11	79	84	1	42	1,27	70	1	5,88	4,62	1,27	5,89	8,01	13,90		

• The amount refunded is greater than the duty collected.

DEPARTMENT OF FINANCE AND COMMERCE,  
STATISTICAL BRANCH:  
Calcutta, 17th May, 1889.

E. J. SINKINSON,  
Offg. Secretary to the Government of India.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weather Review of India for the week ending 8 a.m. on  
Monday, May 20th, 1889.**

The weekly meteorological summary and rainfall return which was commenced last year is now resumed on the approach of the rainy season.

The summary includes a short review of the changes, &c., in the principal meteorological elements and a detailed statement of the rain received in the different Provinces of India during the week. The collection of rainfall is now carried out at nearly all the district head-quarters throughout India and Burma, and the information telegraphed to the Meteorological Department weekly consists briefly of the rainfall for each day of the week under review at the district officer's head-quarters and the total rainfall for the seven days. It also shows the average rainfall of the whole district of which the head-quarters office is the centre. This average is derived from the returns sent in by the sub-divisional offices. The normal average of the district is also given. These figures are not absolutely correct, as daily returns from all the districts are not available, and hence the normal average has been estimated by comparing the monthly averages of the various districts with the monthly averages of neighbouring districts, where the daily fall is known, and estimating the weekly fall accordingly. The final columns of the table give the total rainfall in the various districts since the 13th of May up to the date of the return (in this case the morning of the 20th), the normal fall for the same period, and the variation of the rainfall of the season under review from that normal.

During the past week the distribution of pressure has been remarkably steady. It has been high throughout the week on the west and south coasts of the Peninsula and over the south and centre of the Bay. From these regions it has decreased towards the north,—on some days slowly, on others more briskly,—and was lowest over the east of the Central Provinces, West Bengal, the Gangetic plain, Rajputana, and Sind. Within this low pressure area there were ordinarily three centres of depression,—one over West Bengal and the east of the Central and North-West Provinces, a second over the plain along the foot of the mountains in the North-West Provinces and the Punjab, and a third over Sind. In the neighbourhood of each of these centres the winds were cyclonic in their movements, though the circulation was in each case feeble and irregular. In other parts of the country the general wind directions were fairly normal except on the west coast. In this region the normal wind is a fresh breeze from west (west-south-west—west-north-west), but during the past week light breezes from all directions, including even east, have prevailed on that coast. Over the head of the Bay there has been a strong southerly wind on most days, but in the south and centre the wind has been light and variable. The week has been marked by an absence of travelling storms or cyclones both over the land and sea.

So far, there does not appear to have been any serious advance of the south-west monsoon into the Indian region. There have been one or two falls of rain over Southern India, but they appear to have been attributable to local causes, and have generally been accompanied with light and variable breezes.

The changes of pressure compared with the normal have been large. At first the barometer was below the average over Northern India and the west and south of the Peninsula. It then rose above the average, except in Assam and Malabar. This distribution continued during the 16th and 17th, but on the 18th pressure gave way and fell below the normal again over Northern India. During the next two days this deficiency continued and extended to Central India and the north of the Peninsula.

During the first two days of the week the weather was very cool in the Punjab for the time of year, but was hotter than usual in all other Provinces. On the 16th the departure of temperature from the normal was generally small in all Provinces. This was in a modified degree the case on the 17th also, but on the 18th the thermometer rose again, and from that date till the close of the week the mean average temperature was almost everywhere considerably above the normal average.

On the 15th the chart showed large contrasts of temperature in different parts of India, the deficiency in the Punjab and the excess in Bengal being very remarkable.

Punjab Maximum.		Bengal and North-Western Provinces Maximum.	
Ludhiana	... 97°3—5°7	Burdwan	... 105°7+10°1
Lahore	... 90°1—11°5	Berhampore	... 107°7+13°2
Sialkote	... 89°1—11°9	Purneah	... 104°3+11°1
Rawalpindi	... 88°5—7°4	Durbhanga	... 104°4+10°0
Simla	... 66°2—9°3	Gorakhpore	... 108°8+10°2

West and Central Bengal and the east of the North-West Provinces have been the hottest parts of India relatively to the average during the week, though the absolutely highest temperature has as a rule been reported from the Western Desert.

*Rain.*—The rainfall of India has been very defective. The only divisions recording an excess are East Bengal, the Assam Valley, Coorg, the Konkan, the Bombay Deccan, and South Madras; and of these divisions, the only one which has received an important addition to its rainfall is the Assam Valley, where an inch more than usual fell. The rainfall in Upper India, extending from Chota Nagpur and Behar north-westward across the North-West Provinces to the Punjab, was practically nil, as the few light showers received in the Punjab and North-Western Provinces were of no importance. It will however be seen from the second column of the table that hardly any rain is expected in these regions during this period. The same is true of the central parts of the country,—Khandeish and Rajputana—where the small average which usually falls during the week under review has not been reached.

In Burma only about  $\frac{1}{4}$  of the normal rainfall has been received, while in East Bengal and the Surma side of Assam there has been an excess or only a slight deficiency. Over this portion of the Indian region some moderately heavy rainfalls have already occurred. For instance, in the Amherst district of Tenasserim one subdivisional station received 8·3 inches of rain; Tongail in the Mymensingh district received 6 inches; and Sadiya in Dibrugarh received 7 inches. In Deltaic Bengal and also in Northern Bengal rain, though slight, occurred fairly generally, but on leaving those divisions rainfall, as noted above, practically ceased.

On the South-West Coast rain occurred almost daily, but the amounts were small and the average was not reached; while in the Konkan on the contrary, though there were only one or two wet days, yet owing to heavy falls in the North Kanara district, the average was exceeded. In the Deccan rain fell in all the divisions—heavily in some—and the total was larger than the normal.

In the Madras divisions there were no heavy falls, and the total was short of the normal.

Province.	Division.	RAINFALL DATA FOR WEEK ENDING MAY 20TH, 1889.			RAINFALL DATA FROM MAY 13TH TO MAY 20TH, 1889.		
		Average actual rainfall of division.	Average normal rainfall of Division.	Excess or defect, in Inches.	Average actual rainfall of season to date.	Average normal rainfall, May 13th to May 20th.	Excess or defect of (season- al) rainfall expressed as a per- centage.
		Inches.	Inches.	Inches.	Inches.	Inches.	Per cent.
BURMAH	Tenasserim	2'73	3'93	-1'20	2'73	3'93	-31
	Lower Burmah	0'63	2'59	-1'96	0'63	2'59	-76
	Central Burmah	0'51	2'06	-1'55	0'51	2'06	-75
	Upper Burmah	0'13	?	?	0'13	?	?
	Arakan	1'36	5'87	-4'51	1'36	5'87	-77
BENGAL AND ASSAM...	Eastern Bengal	1'93	1'58	+0'35	1'93	1'58	+22
	Assam (Surma)	4'00	4'00	-0'60	4'00	4'00	-13
	Do. (Brahmaputra)	4'06	2'96	+1'10	4'06	2'96	+37
	Deltaic Bengal	0'82	0'96	-0'14	0'82	0'96	-15
	Central Bengal	0'79	0'90	-0'11	0'79	0'90	-12
	North Bengal	1'76	2'03	-0'27	1'76	2'03	-13
	Orissa	0'57	0'68	-0'11	0'57	0'68	-16
	Chota Nagpur	0'01	0'63	-0'62	0'01	0'63	-98
	Behar (South)	0	0'44	-0'44	0	0'44	-100
NORTH-WESTERN PROVINCES AND ODDH.	Do. (North)	0	0'49	-0'49	0	0'49	-100
	North-Western Provinces (East).	0	0'14	-0'14	0	0'14	-100
	Oudh (South)	0	0'12	-0'12	0	0'12	-100
	Do. (North)	0	0'28	-0'28	0	0'28	-100
	North-Western Provinces (Central).	0'02	0'06	-0'04	0'02	0'06	-67
	North-Western Provinces (West).	0	0'13	-0'13	0	0'13	-100
PUNJAB	North-Western Provinces (Submontane).	0'03	0'22	-0'19	0'03	0'22	-86
	Punjab (South)	0'03	0'21	-0'18	0'03	0'21	-86
	Do. (Central)	0	0'21	-0'21	0	0'21	-100
	Do. (Submontane)	0'04	0'30	-0'26	0'04	0'30	-90
	Do. (Hill Districts)	0'05	0'80	-0'75	0'05	0'80	-94
	Do. (North-West)	0'15	0'22	-0'07	0'15	0'22	-32
BOMBAY AND MALABAR COAST DISTRICTS (MADRAS).	Do. (West)	0'02	0'08	-0'06	0'02	0'08	-75
	Malabar	1'61	2'29	-0'68	1'61	2'29	-30
	Madras (South Central)	0'86	1'06	-0'20	0'86	1'06	-19
	Coorg	1'54	1'30	+0'24	1'54	1'30	+18
	Mysore	...	...	...	...	...	...
	Konkan	0'25	0'13	+0'12	0'25	0'13	+92
	Bombay Deccan	0'53	0'43	+0'10	0'53	0'43	+23
CENTRAL PROVINCES AND BERARS.	Hyderabad (North)	...	...	...	...	...	...
	Khandeish	0'09	0'15	-0'06	0'09	0'15	-40
	Berars	0	0'06	-0'06	0	0'06	-100
	Central Provinces (West)	0	0'07	-0'07	0	0'07	-100
BOMBAY (NORTH)	Ditto (Central)	0'01	0'11	-0'10	0'01	0'11	-91
	Ditto (East)	0'12	0'18	-0'06	0'12	0'18	-33
	Guzerat	0	0'14	-0'14	0	0'14	-100
RAJPUTANA AND CENTRAL INDIA.	Kathiawar	0	0'01	-0'01	0	0'01	-100
	Sind	0	0	0	0	0	0
	Central India (East)	0	0'09	-0'09	0	0'09	-100
	Rajputana (East), India (West).	0	0'18	-0'18	0	0'18	-100
MADRAS	Rajputana (West)	0	0'11	-0'11	0	0'11	-100
	East Coast (North)	0'22	1'11	-0'89	0'22	1'11	-80
	Hyderabad (South)	0'04	0'23	-0'19	0'04	0'23	-83
	Madras (Central)	0'25	0'44	-0'19	0'25	0'44	-44
	East Coast (Central)	0'23	0'45	-0'22	0'23	0'45	-49
	Ditto (South)	0'24	0'79	-0'55	0'24	0'79	-70
	Madras (South)	0'85	0'57	+0'28	0'85	0'57	+49

W. L. DALLAS,

SIMLA, 23rd May, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and prospects of the Crops.

**Madras.**—*For week ending 18th May.*—No rain in Godavari district, Chingleput, and South Arcot; slight in Ganjam, Nellore, Cuddapah, Bellary, Kurnool, North Arcot, and Trichinopoly; and fair elsewhere. Crops generally good, but suffering from want of water in Ganjam, Vizagapatam, North Arcot, and Salem. Wet crops withering in parts of Cuddapah and Anantapur. Scarcity of water very severely felt in Ganjam. Water-supply insufficient in Nellore, Cuddapah, Bellary, North Arcot, and Salem. Pasture deficient in Ganjam, Vizagapatam, North Arcot, and Trichinopoly. Prices rising in Ganjam, Vizagapatam, Kistna, and four other districts; falling in seven, and stationary in others. Labourers employed on last day of week—on Rushikulya works, 5,809; Gopalpore Canal, 4,734; Road works, 1,676. General prospects favourable, except in Ganjam.

**Bombay.**—*For week ending 22nd May.*—Rain in Deccan and Southern Mahratta Country and in parts of Ahmedabad, Khandesh, Nasik, and Ratnagiri. Harvesting of late crops finished in Karachi; continues in Hyderabad. Preparations for next season's crops progressing in most districts, and sowing in Kanara. Rice sowing commenced in Belgaum. Fodder scarce in Khandesh and in parts of Nasik, Thana, Poona, Dharwar, Kathiawar, and Baroda. Drinking-water failing in parts of Khandesh; scarce in parts of Nasik, Ahmednagar, Sholapur, Dharwar, and Kathiawar.

**Bengal.**—*For week ending 21st May.*—Showers have fallen in almost all districts of Bengal Proper and in Cuttack, Balasore, Singhbhoom, and Manbhoom. These showers have done some good to the standing crops and have assisted in ploughing and sowing operations, but more are much needed. In Behar rain still holds off, and the crops are suffering in consequence. *Cheena* and *mung* have been considerably damaged, but indigo is still bearing up, and sugarcane is being irrigated. The spring rice harvest is nearly over, and the outturn is estimated at ten annas in some places. The price of rice is still increasing in many districts, and the rates reported from the affected districts are—Durbhanga 12½ seers, Mozufferpore 11 seers, and Chumparun 10 seers per rupee.

**North-Western Provinces and Oudh.**—*For week ending 22nd May.*—Weather very hot. Clouds with light rain here and there. *Rabi* harvest nearly over. Indigo, sugarcane, and other summer crops being irrigated. Supplies sufficient. Prices generally steady. Condition of cattle satisfactory.

**Punjab.**—*For week ending 22nd May.*—Slight rain in a few districts. Prices rising in Hissar; falling in Delhi, Shahpur, and Peshawar; stationary elsewhere. Harvesting and threshing operations nearly completed. Ploughings for *kharif* sowings are in progress. Outturn of *rabi* is reported to be good. Cotton and sugarcane crops promising. Stock cattle are generally healthy. Fodder sufficient.

**Central Provinces.**—*For week ending 22nd May.*—Weather hot and cloudy, with slight storms and rain. Ploughing in progress. Rice sowing commenced in Bilaspur. Water-supply deficient. Prices generally steady.

**Burma.**—*For week ending 18th May.*—Slight rain fell in several districts in Upper and Lower Burma, but rain is still wanted in Bhamo in Upper Burma. Reaping of dry weather crops is generally finished, and in some cases early paddy is being planted. The price of paddy has risen in Pegu, Prome, Henzada, Thayetmyo, and Tavoy in Lower Burma, and in Minbu in Upper

Burma; while prices have fallen in Yamethin and Tharrawaddy, and elsewhere are stationary.

**Assam.**—*For week ending 22nd May.*—Weather seasonable. Rainfall sufficient in all districts. Ploughing and transplanting of late rice progressing. Prospects of tea and other crops good.

**Mysore and Coorg.**—*For week ending 22nd May.*—Rainfall fair in Mysore district, scanty in others. Standing crops good, except in parts of Tumkur district, where water is still wanted for wet crops. Crops harvested generally favourable. Prices slightly fallen in Kolar district.

Slight rain in Coorg. Ploughing of wet lands commenced. Prospects good.

**Berar and Hyderabad.**—*For week ending 22nd May.*—Ploughing operations continue in Berar. Cattle healthy, but fodder and water insufficient. Prices of food-grains high in some districts.

**Central India.**—*For week ending 22nd May.*—No material change in condition of crops and weather since last report. Slight rain in Bhopawar. Prices of food-grains falling in Manpur, Bhopawar, and Neemuch.

**Rajputana.**—*For week ending 22nd May.*—Some rain at Abu and Ajmere. Condition of agricultural stock good. Pasturage or fodder scarce in Marwar, Kherwara, Meywar, and parts of Sirohi. Prices rising everywhere, except in Sirohi, Marwar, Kherwara, and Jhallawar.

**Nepal.**—*For week ending 16th May.*—Slight rain during the week. The rain will do good to rice and Indian corn. Chillies being planted.

E. C. BUCK,

*Secretary to the Government of India.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.

CIVIL WORKS.

Irrigation.

REVENUE REPORT OF IRRIGATION WORKS IN BENGAL FOR 1887-88.

No. 90 I., dated Simla, the 22nd May, 1889.

RESOLUTION—By the Government of India, Public Works Department.

Read—

The Revenue Report of Irrigation Works in Bengal for 1887-88 and the Resolution thereon by the Government of Bengal, No. 4581A., dated 18th March 1889.

OBSERVATIONS.—In the Bengal Province there are four Major Works; the Orissa and the Sone Canals, which are mainly for purposes of irrigation, the Midnapur Canal, which is mainly, and the Hidgellee Tidal, which is entirely, for navigation purposes. There are three Minor Provincial Works in operation; the Sarun Canals (for irrigation) and the Orissa Coast Canal and the Calcutta and Eastern Canals for navigation. There are also two works in abeyance, the Tirhut and Damodar Projects, on which in past years  $7\frac{1}{4}$  lakhs of rupees have been spent on surveys and preliminary work. The following statement shows the Capital expenditure during and up to the end of the year 1887-88 for the construction of these works:

	Number of Works.	CAPITAL EXPENDITURE DURING THE YEAR.			CAPITAL EXPENDITURE TO THE END OF THE YEAR.		
		Direct.	Indirect.	Total.	Direct.	Indirect.	Total.
<b>MAJOR WORKS.</b>							
Productive ... ..	4	Rs. 5,45,628	Rs. 12,348	Rs. 5,57,976	Rs. 5,81,08,956	Rs. 16,40,329	Rs. 5,97,49,285
<b>MINOR WORKS AND NAVIGATION.</b>							
Works of which Capital and Revenue Accounts are kept Imperial (in abeyance) ... ..	2	Rs. 1,200	...	Rs. 1,200	Rs. 6,83,766	Rs. 90,889	Rs. 7,74,655
Provincial (in operation) ... ..	3	Rs. 3,37,445	Rs. 8,797	Rs. 3,46,242	Rs. 99,05,058	Rs. 1,85,594	Rs. 1,00,90,652
<b>GRAND TOTAL</b> ... ..	9	Rs. 8,81,873	Rs. 21,145	Rs. 9,03,018	Rs. 6,86,97,780	Rs. 19,16,812	Rs. 7,06,14,592

There are no Protective Works in Bengal, but a grant-in-aid of Rs. 8,66,000 (included in the above figures under Minor Works in operation) has been given from Protective funds for the Orissa Coast Canal. There are three works in Bengal of which no Capital accounts are kept,—the Nuddea River, the Eden Canal, and the Madhuban Canal.

The Capital expenditure of 9 lakhs was chiefly on the Orissa Canals (about 4 lakhs), the Orissa Coast Canal (about  $3\frac{1}{2}$  lakhs), and on the Sone Canals (about  $1\frac{1}{2}$  lakhs). The expenditure on the Orissa Canals was chiefly on drainage and protective works, and on the extensions of the Taldanda and Matchgong Canals;  $26\frac{1}{2}$  miles of new distributaries were completed. On the Orissa Coast Canal the money was chiefly spent in completing the earth-work of the canal and on the locks. The expenditure on the Sone Canals was almost entirely on drainage works and on 8 miles of distributaries.

2. The sanctioned estimates of the four Major Works aggregate about 719 lakhs, of which  $597\frac{1}{2}$  have been expended, leaving  $121\frac{1}{2}$  lakhs to be spent; of this balance 89 lakhs are on the Orissa Canals, and 32 lakhs on the Sone Canals.

The following statement shows the progress on construction of the works :

	Number of works.	SANCTIONED.		COMPLETED.	
		Miles of Canals.	Miles of Dis- tributaries.	Miles of Canals.	Miles of Dis- tributaries.
MAJOR WORKS.					
Productive Works ... ..	4	752	3,623	701	2,168
MINOR WORKS.					
Of which Capital and Revenue Accounts are kept (in operation) ... ..	3	145	Nil	143	Nil
TOTAL ...	7	897	3,623	844	2,168

There are 53 miles of canals and 1,455 miles of distributaries to be constructed to complete the projects, of which 52 miles of canals and 1,429 miles of distributaries are in the Orissa Irrigation System.

3. The actual financial results of the year under review on the works in operation are shewn in the following statement :

	Capital outlay to end of the year.	Gross Revenue.	WORKING EXPENSES.			Net Revenue.	Percentage of Net Revenue on Capital outlay.
			Direct.	Indirect.	Total.		
<b>MAJOR WORKS.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>
Productive Works. Orissa Canal ...	2,34,30,085	2,22,670	4,80,949	21,501	5,02,450	-2,79,771	Nil
Midnapur Canal ...	84,47,003	2,83,925	2,89,619	10,783	2,50,396	-16,471	Nil
Hidgellie Tidal Canal. ...	18,40,296	41,858	64,895	2,081	66,976	-25,118	Nil
Sone Canal ...	2,60,31,901	5,88,618	7,01,979	50,369	7,52,348	-1,63,730	Nil
<b>Total Productive Works</b> ...	<b>5,97,49,285</b>	<b>10,87,080</b>	<b>11,87,436</b>	<b>84,734</b>	<b>15,72,170</b>	<b>-4,85,090</b>	<b>Nil</b>
<b>MINOR WORKS AND NAVIGATION.</b>							
<i>Works of which Capital and Revenue Accounts are kept.</i>							
Saran Canals ...	6,96,413	20,665	28,120	1,277	29,397	-8,732	Nil
Orissa Const Canal ...	41,55,123	53,837	80,868	2,639	83,507	-29,678	Nil
Calcutta and Eastern Canals	52,39,116	5,79,934	2,12,312	12,341	2,24,656	3,55,278	678
<b>TOTAL</b> ...	<b>1,00,90,652</b>	<b>6,54,436</b>	<b>3,21,300</b>	<b>16,260</b>	<b>3,37,560</b>	<b>3,16,876</b>	<b>3-14</b>

NOTE.—The indirect charges under Working Expenses (which are mainly a calculation of liability of Leave and Pension Allowances) are not shown in the Finance Accounts.

4. It will be seen from this that only one work in Bengal paid its working expenses during the year. As regards the Major Works, the loss of Rs. 4,85,090 is the largest which has been recorded for the last 20 years, during which time the gross Revenue from the Major Works has in nine years more than covered their working expenses. The large loss of the year under review is due both to increase in working expenses and to decrease in revenue, but chiefly to the latter cause. The revenue of the year (Rs. 10,87,080) is nearly 3 lakhs less than that of the previous year, and is less than that of any year since 1880-81, while the working expenses are the highest on record.

5. The decrease in the receipts from the Major Works is almost entirely due to a falling off in the collections of water-rates. The cause of this is explained as follows in the review of the Local Government:

An examination of the figures by canals shows that, although there is a small falling off on the Midnapur Canal, the decrease under water-rates is otherwise wholly on the Sone

Canals, there having been satisfactory increments both on the Orissa and Sarun Canals. The decrease on the Sone Canals is due to three causes:—*firstly*, the good collecting work of the year or two immediately preceding the year under review had largely diminished the arrears, so that there was actually less to collect; *secondly*, the comparatively small area irrigated in 1886-87 reduced the amount of the current demands; and *thirdly*, the agitation amongst the cultivators, which retarded the collections, so that there was a considerable increase in the closing balance as compared with the opening balance of the year.

The increase in the working expenses is almost entirely due to an alteration in the system of accounting for the charges for establishment. Formerly a percentage was charged against Irrigation Works in Bengal, while all the remaining cost of establishment was debited to "Roads and Buildings." During the current year a different procedure has been adopted, and the actual cost of the establishment employed on irrigation, or mainly so employed, has been charged to that head; this system, while it is more correct in itself, adds materially to the charges against irrigation for establishment. This point is enlarged on in paragraphs 18 to 21 below.

6. With reference to the Minor Works of which Capital and Revenue Accounts are kept, however, the results are very different. The net revenue is, with two exceptions, the largest on record; and it would have been absolutely the largest on record but for the loss on the Orissa Coast Canal, which is a work that has not yet reached its full development. The working expenses shew a moderate increase over those of the previous years: the increase is due partly to the Orissa Coast Canal, and partly to the new method of debiting the establishment charges.

7. The Revenue Accounts of the Major Works in Bengal shew, on the whole, a loss of over 330 lakhs of rupees since the commencement of operations. That is to say, the simple interest on Capital and the working expenses up to date have exceeded the gross Revenue by that amount. The simple interest for the year 1887-88 amounted to Rs. 23,13,446, and the loss on Revenue Accounts, for direct charges, was (14,87,436—10,87,080) Rs. 4,00,356, making a total of Rs. 27,13,802, which falls on the revenues of the Province, as the works in Bengal are all provincialised. Under the terms, however, of the last Provincial Contract, a sum of Rs. 20,89,000 was the net assignment to Bengal from Imperial Revenues on account of four Major Works, so that a loss of only Rs. 6,24,802 really falls on Provincial Revenues, and the remaining sum is paid out of Imperial Revenues of India.

8. The figures in the foregoing paragraphs have been based on the actual receipts collected within the year and credited in the Treasury Accounts. The following statement shews the *assessed* revenue of the year compared with that of the three previous years:

	1887-88.			TOTAL ASSESSED REVENUE.		
	Assessed water-rates.	Rate per acre irrigated.	Total Assessed Revenue.	1886-87.	1885-86.	1884-85.
MAJOR WORKS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Productive Works. { Orissa Canal ...	1,50,297	1.37	2,35,472	2,08,311	2,05,527	1,74,525
Midnapur Canal ...	1,02,532	1.56	2,46,073	2,32,101	2,04,643	2,63,469
Hidgellee Tidal Canal*	Nil	...	41,858	54,404	52,455	43,507
Sone Canal ...	7,25,810	2.30	8,10,173	7,87,054	8,92,025	12,07,514
Total Productive Works ...	9,78,639	1.99	13,33,576	12,81,870	14,14,650	16,89,015
MINOR WORKS.						
Works for which Capital and Revenue Accounts are kept.						
Sarun Canals ...	21,850	5.18	21,445	22,104	23,156	24,144
Orissa Coast Canal*	...	...	53,854	29,488	13,718	Nil
Calcutta and Eastern Canals*	...	...	5,79,934	4,83,654	4,79,484	5,69,726
TOTAL MINOR WORKS ...	21,850	5.18	6,55,233	5,36,246	5,16,358	5,93,870

\* These canals are for navigation only.



9. The above statement gives a more accurate view of the working of the canals as irrigation systems during the year than does the statement of actual collections in paragraph 3. On both the Orissa and the Sone Canals the rainfall of 1887 was deficient, and the irrigated area was considerably larger than in the previous year, and the assessed water-rates were consequently higher.

The increase on the Midnapur Canal was entirely due to navigation revenue; there was a slight decrease in the irrigation assessments. The decrease in revenue on the Hidgellee Tidal Canal is due to the closure on account of silt clearance. The assessed revenue on the Sarun Canals is exceptional; it is not assessed on the area irrigated, but is almost entirely made up of amounts which are guaranteed by the indigo planters of the district, whatever area may be irrigated.

10. The rate per acre assessed as water-rate on occupiers in Bengal (Rs. 1.99) compares unfavourably with that of all other Provinces\* in India:

\* Rate per acre in 1887-88.

Bombay	...	...	Rs. 4.88
Madras	...	...	3.3
Punjab	...	...	2.19
North-Western Provinces	...	...	3.4

this is partly due to the fact that the water-rates are lower, and partly to the fact that no addition is made to the land

revenue paid by landowners on account of the supply of facilities for irrigation.

11. The areas actually irrigated during the year are compared in the following statement with those of the previous three years:

					1887-88.	1886-87.	1885-86.	1884-85.
MAJOR WORKS.								
Productive Public Works—					Acres.	Acres.	Acres.	Acres.
Orissa Canal	...	...	...	...	109,508	77,709	72,339	57,362
Midnapur Canal	...	...	...	...	65,864	69,762	70,604	69,294
Sone Canal	...	...	...	...	315,380	268,204	332,670	370,661
TOTAL					490,750	415,675	475,613	497,327
MINOR WORKS.								
Sarun Canal	...	...	...	...	4,218	2,146	4,665	7,223
TOTAL AREA IRRIGATED					494,968	417,821	480,278	504,550

12. It is mentioned in paragraph 13 of the Chief Engineer's note that the irrigated area in Orissa is nearly half of the area which is provided with distributaries; this, coupled with the fact that there has been an increase of nearly 50 per cent. in the area as compared with that of the previous year, is satisfactory. The existing main canals in Orissa are capable of carrying a much larger volume of water than can at present be delivered on the fields by the existing distributaries. Liberal estimates were sanctioned in 1883 for the extension of the distributary system, but the progress made is extremely slow, as is shewn by the following figures:

				EXPENDITURE ON DISTRIBUTARIES.		Total number of miles of distributaries completed at end of year.
				During year.	To end of year.	
				Rs.	Rs.	Miles.
1884-85	...	...	...	41,750	14,00,283	641
1885-86	...	...	...	38,548	14,38,836	645
1886-87	...	...	...	90,879	15,29,715	691½
1887-88	...	...	...	91,414	16,21,282	718

The sanctioned estimate provides a total sum of nearly 49 lakhs for expenditure on 2,147 miles of distributaries from the Orissa Canal; so that only one-third of the capital required has been spent and only one-third of the distributaries completed. A reference to the Irrigation map shews that many miles of distributaries have been commenced from Ranges 2 and 3

of the High Level Canal, on which construction must have made extremely slow progress, and on three Branch Canals which are shewn as completed (the Patamundi, Golri, and lower part of Kendrapara), no distributaries appear to have been begun. It is to the completion of these distributaries that Government must look both for a proper utilisation of the water-supply and for a moderate return on its outlay; and the extension of irrigation from the distributaries which are completed appears to warrant a more rapid execution of the remainder of those which have been sanctioned. The Government of Bengal was specially addressed on this subject in October last.

13. The value of the crops irrigated during the year is stated as being Rs. 89,19,633, or about  $2\frac{1}{2}$  lakhs less than last year, although there was an increase of 77,147 acres irrigated. From the remarks made in para. 113 of the Chief Engineer's note, it appears that the statistics concerning the value of irrigated crops are not very accurate. Crop experiments were recorded on the Orissa and Sone Canals; in Orissa the experiments gave the following results:

		OUTTURN OF—	
		Paddy. Mds.	Straw. Mds.
Canal-irrigated rice lands	...	12.32	16.84
Unirrigated rice lands	...	9.88	12.0

Both in irrigated and unirrigated lands the results are considerably less than the averages of previous years.

On the Sone Canal the results were—

		OUTTURN OF—	
		Paddy. Mds.	Straw. Mds.
Canal-irrigated rice lands	...	17.67	39.45
Unirrigated rice lands	...	10.75	23.67

The accuracy of the crop experiments recorded by the Canal Officers was much questioned during the enquiry made by the Irrigation Commission, which was appointed by the Local Government in 1888 to enquire into the working of the Sone Canal System. The general accuracy of the returns has, however, been substantially confirmed by a report lately submitted by an officer of the Civil Service, who personally conducted a large number of experiments in the khareef season of 1888.

14. The Working Expenses (including indirect charges) are shewn in the following statement:

		WORKING EXPENSES.		WORKING EXPENSES.		
		1887-88.	Rate per acre irrigated.	1886-87.	1885-86.	1884-85.
MAJOR WORKS.		Rs.	Rs.	Rs.	Rs.	Rs.
Productive Works.	Orissa Canal ...	5,02,450	4.58	5,20,543	3,56,672	3,29,288
	Midnapur Canal	2,50,396	3.80	2,35,038	2,18,127	2,31,803
	Hidgellee Tidal Canal*	66,976	...	22,735	50,147	36,248
	Sone Canal ...	7,52,348	2.28	5,97,621	5,73,345	6,28,075
Total of Irrigation Systems ...		15,05,194	3.06	13,53,402	11,48,144	11,89,166
Total Productive Works ...		15,72,170	...	13,76,187	11,98,291	12,27,414
MINOR WORKS.						
Works of which Capital and Revenue Accounts are kept.						
Sarun Canal ...	...	29,397	6.96	28,659	23,331	25,593
Orissa Coast Canal*	...	88,507	...	61,426	30,712	Nil
Calcutta and Eastern Canals*	...	2,24,656	...	1,92,264	1,96,209	2,91,214
TOTAL MINOR WORKS ...		3,37,560	...	2,82,349	2,50,252	3,16,807
TOTAL OF IRRIGATION SYSTEMS (PRODUCTIVE AND MINOR) ...		15,34,591	3.10	13,82,061	11,71,475	12,14,759
GRAND TOTAL ...		19,09,780	...	16,58,436	14,48,543	15,44,221
RATE PER ACRE IRRIGATED IN IRRIGATION SYSTEMS ...		3.10	...	3.30	2.44	2.40

\* These are canals for navigation only.

## 15. The rate per acre of the working expenses in Bengal is higher than that

Rate per acre in 1887-88.

	Rs.
• Madras ... ..	0.80
Punjab ... ..	1.22
North-Western Provinces ... ..	1.69
Bengal ... ..	3.10
Bombay ... ..	5.29

of other Provinces of India\* except Bombay, but it is necessary to remember that, although this method of general comparison is perhaps the best which can be adopted, it is not one which can be made with absolute accuracy: the circumstances of

the various Provinces are not parallel. In Bengal, for instance, a considerable proportion of the working expenses of the irrigation systems is directly due to navigation, and is quite without connection with the irrigated area; but in the North-Western Provinces and the Punjab the proportion which is fairly chargeable against navigation is much smaller.

This is shewn by the fact that in the North-Western Provinces 31 per cent. of the mileage of the irrigation canals are navigable, in the Punjab 14 per cent.; but in Bengal 67 per cent. of the four irrigation systems are open for navigation.

16. The large increase in the working expenses of the Orissa Canal in 1886-87 and 1887-88 is mainly due to the repairs to the breach in the Mahanadi weir, the maintenance and repairs of the headworks having cost Rs. 39,689 in 1885-86, Rs. 2,31,706 in 1886-87, and Rs. 1,91,350 in 1887-88. There was also exceptionally heavy expenditure on the headworks of the Sone Canal, due to the failure of the under sluice piers. The increase in the working expenses of the Hidgelee Tidal Canal is due to heavy silt clearance: a project is about to be recommended for the sanction of the Secretary of State to obviate the heavy expenditure which is periodically necessary for this purpose and which materially interferes with the efficiency of this canal.

17. The details of the working expenses shown in the preceding paragraph are as follows:

	1887-88.	1886-87.
	Rs.	Rs.
Extensions and Improvements ... ..	7,010	5,092
Maintenance and Repairs ... ..	9,24,942	9,81,196
Establishment ... ..	7,21,376	5,16,714
Tools and Plant ... ..	1,05,408	83,143
Indirect Charges ... ..	1,00,994	72,341
<b>TOTAL ...</b>	<b>19,09,730</b>	<b>16,58,486</b>

\*The charge for Establishment is made up of the following items:

	1887-88.	1886-87.
	Rs.	Rs.
Share of Direction and Accounts ... ..	49,112	49,216
Executive Officers ... ..	3,90,246	1,77,175
Medical ... ..	...	...
Revenue Establishment ... ..	1,98,340	2,04,819
Navigation ... ..	83,678	85,504
<b>TOTAL ...</b>	<b>7,21,376</b>	<b>5,16,714</b>

18. It has already been explained that the increase in the working expenses of the works in Bengal has been mainly due to a change in the method of dealing with the establishment charges. The figures given above display this fact clearly, the increase under Establishment (Rs. 2,04,662) and that under Indirect Charges (Rs. 28,653) being entirely due to this change.

19. The entire cost of establishment in Bengal for all branches of the Public Works Department during the last three years has been—

					Rs.
In 1885-86	...	...	...	...	22,79,650
„ 1886-87	...	...	...	...	22,79,424
„ 1887-88	...	...	...	...	21,91,041

The charges in the first two years are practically the same; the decrease in the last year is mainly due to revisions of establishment, and partly to a less charge under “Fees and Allowances for the Collection of Revenue,” consequent on the reduced revenue realized.

20. The above charges were distributed as follows:

					Buildings and Roads Branch.	Irrigation Branch.	Other Departments.
					Rs.	Rs.	Rs.
1885-86	...	...	...	...	13,74,353	8,10,028	95,269
1886-87	...	...	...	...	14,00,411	8,20,778	58,285
1887-88	...	...	...	...	8,54,592	11,10,454	2,25,995

It will thus be seen that, as the result of the new procedure adopted for the distribution of the cost of establishment between the different branches of the Public Works Department, the charges to irrigation have risen from a little over 8 lakhs of rupees to over 10 lakhs of rupees, whilst the charges to the Buildings and Roads Branch have fallen from 14 lakhs to 8½ lakhs.

21. The percentages which the expenditure on establishment bore to that on Works and Repairs in the Buildings and Roads and Irrigation Branches in these years were—

					Buildings and Roads Branch.	Irrigation Branch.
					Rs.	Rs.
1885-86	...	...	...	...	68.02	23.00
1886-87	...	...	...	...	48.12	23.00
1887-88	...	...	...	...	29.26	35.25

The percentage charged to Buildings and Roads Branch in 1885-86 was abnormally high, owing to the grants for Works and Repairs being unusually low (20 against 29 lakhs); but the reduction in 1887-88 below the percentage of the previous year is very marked. In the Irrigation Branch the increase is also very noticeable.

22. The largeness of the arrears in the collection of water-rates was specially noticed last year by the Government of India in reviewing the operations of the year 1886-87. It was said, in para. 8 of the Resolution, “the Governor-General in Council trusts that the measures which have been introduced may be worked with persistent energy until the results obtained are more in consonance with those which are recorded in other Provinces.” The improvement in the collections which was observed in 1886 and 1887 has not, however, been maintained, the outstanding balances of water-rates have increased on each of the four irrigating systems, the aggregate figures being—

					Rs.
Water-rates outstanding on 1st April 1885	.	.	.	.	9,24,311
Ditto ditto 1886	.	.	.	.	5,49,089
Ditto ditto 1887	.	.	.	.	3,96,226
Ditto ditto 1888	.	.	.	.	5,87,148

The increase has been chiefly on the Sone Canal, where the outstandings were Rs. 2,31,582 in 1887 and Rs. 4,11,281 in 1888. It is explained that the cause of this was the agitation among the cultivators and the appointment of a Committee of Enquiry, which seriously retarded the collections, as the cultivators anticipated that remissions of outstandings would probably result.

23. The statistics given in the Chief Engineer's note concerning the complaints do not shew clearly the number of complaints received, disposed of, and outstanding. The number of complaints about irrigation matters in Bengal is very large: in Orissa 2,743 complaints were received about assessments alone, of which a large proportion were admitted as valid; the number not disposed of (1,503) appears unduly large: in Midnapur 841 complaints were received, and a large proportion were disposed of: in the Sone Canal the number of complaints received is not stated, but the total number to be dealt with was 8,835: of complaints against assessment, remissions were granted in 37·3 per cent. of the cases.

24. No information is given concerning the progress of collections by the certificate procedure in Orissa. In Midnapur no certificates were issued in connection with the current demand, but 16,052 were issued with reference to arrears, 72 per cent. of all certificate cases were disposed of, and in 85 per cent. of the cases the dues were realised. The information given concerning the certificate procedure on the Sone Canal is not complete. There was a considerable increase in certificates in the Patna district, and a very large decrease in Shahabad. The progress made in collecting dues in the Patna district is slow, and the arrears are large.

25. The Government of India trusts that energetic measures will be adopted to ensure the collection of the current demand as soon as it is due; such action will, more than anything else, tend to reduce the necessity of resorting to the certificate procedure.

26. The following statement shews the navigation revenue of the year and that of the previous three years:

	NAVIGATION REVENUE,		NAVIGATION REVENUE.			
	1887-88.	Per mile of Navigable Canal.	1880-87.	1885-86.	1894-95.	
	Rs.	Rs.	Rs.	Rs.	Rs.	
<i>Works partly for Irrigation and partly for Navigation—</i>						
Oriasa Canal ... ..	71,004	416	67,048	84,012	79,802	
Midnapur Canal ... ..	1,26,574	1,758	1,09,693	1,37,578	128,747	
Sone Canal ... ..	55,904	256	54,254	46,243	51,761	
<i>Works for Navigation only—</i>						
Hidgellie Tidal Canal ...	40,406	1,393	51,904	52,143	41,382	
Calcutta and Eastern Canals ...	5,74,766	*21,288	4,77,199	5,01,141	5,20,495	
Orissen Coast Canal ...	52,828	542	28,587	13,663	...	
TOTAL ...	9,21,482	1,500	7,88,085	8,34,780	8,22,187	

The figures in this statement are taken from column 5 in Form I. C.

\* This rate is calculated on 27 miles of artificial canal; but there is an extensive system of navigable rivers which are connected with the system known as the "Calcutta and Eastern Canals."



27. In addition to the above works, there is a system of navigable rivers—the Nadiya rivers—which are maintained by the Public Works Department. The navigation revenue on these rivers has been—

	1887-88.	1886-87.	1885-86.	1884-85.
Nadiya Rivers	1,98,675	2,03,250	1,83,781	1,95,457

The revenue of these rivers has hitherto been collected under the orders of the Board of Revenue, but, from the close of the year under review, this duty has been made over to the Irrigation Branch of the Public Works Department. There has been an increase of 50 per cent. in the working expenses of these rivers in 1887-88; this is partly due to the alteration in the system of charging for establishment, but mainly to an actual increase in maintenance and repairs, due to training works on the Bhagirati river, which, however, have not yet succeeded in keeping the channel open through the dry season.

28. The increase in the navigation revenue in Bengal is satisfactory. It is extremely difficult to calculate the portion of working expenses on irrigation systems which is properly due to navigation: an attempt to do this is made in Form I. D. attached to the report under review, which results in showing that navigation in Bengal returned a net profit of Rs. 4,59,521. There is no doubt about the remunerative character of the Calcutta and Eastern Canals: the net revenue of the year (including indirect charges) was Rs. 3,55,278 on a Capital expenditure of Rs. 52,39,116, or 6.78 per cent.

29. The quantity and value of goods carried on the canals were as follows:

		TONS OF GOODS.		VALUE.	
		1887-88.	1886-87.	1887-88.	1886-87.
		Tons.	Tons.	Rs.	Rs.
Orissa Canal	...	75,764	...	50,32,093	42,56,181
Midnapur Canal	...	128,476	115,127	1,18,44,844	97,25,587
Hidgellies Tidal Canal	...	44,563	53,597	26,13,351	31,48,826
Sone Canal	...	70,073	78,684	56,80,508	64,65,651
Orissa Coast Canal	...	46,252	27,656	21,64,699	11,91,892
Calcutta and Eastern Canals...	...	956,527	860,934	6,35,62,493	5,30,42,670
TOTAL	...	1,321,655	...	9,08,97,986	7,78,30,807

The figures given for the quantity of goods carried do not include the rafts of bamboos and timber which are expressed in the returns either in number or in cubic feet.

30. Besides the larger works treated of in this Resolution for which separate Capital and Revenue Accounts are kept, there are three systems of which only Revenue Accounts are kept, and for which the following table gives the same information as is given in paragraph 3 for the larger system:

		Gross Revenue.	WORKING EXPENSES.			Net Revenue.
			Direct.	Indirect.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.
Nadiya Rivers	...	1,98,675	92,022	...	92,022	1,06,653
Eden Canal	...	918	41,769	...	41,769	-40,851
Madhuban Canal	...	9	9,821	...	9,821	-9,812
TOTAL	...	1,99,602	1,43,612	...	1,43,612	55,990

Of these, the Nadiya River system has already been referred to in para. 27. The Eden Canal is mainly for the supply of drinking water to Burdwan and to villages along its banks. The Madhuban Canal is intended for irrigation, but the weir, breached in 1886, was only restored by the end of the year under report, and no irrigation has as yet been possible.

31. In the Resolution of the Government of India on the report of the year 1886-87 the attention of the Government of Bengal was drawn to the very late date on which the report was submitted to the Government of India. The report under review has nevertheless been received by the Government of India some days later than that of the previous year, and more than four months after it was due, although the reports of Superintending Engineers and Commissioners were, with one exception, received by the Government of Bengal in good time. His Honour the Lieutenant-Governor, in para. 15 of the review by the Local Government, has specially referred to the necessity for increased punctuality in dealing with this report: the Government of India trusts that measures will be adopted which will ensure that result. The reasons given in the last paragraph of the Chief Engineer's note cannot be accepted as sufficient excuse for the great delay which occurred in its preparation.

ORDER.—Ordered, that copies of this Resolution and of the Report be forwarded to the Finance and Commerce and the Revenue and Agricultural Departments for information.

Ordered also, that copies of this Resolution be forwarded to the Government

The Governments of Madras, Bombay, North-Western Provinces, and the Punjab.  
The Chief Commissioners, Central Provinces, Burma, and Assam.  
The Resident at Hyderabad.  
The Agents to the Governor General for Central India and Rajputana.

of Bengal for information and guidance; and that copies of the Resolution be

forwarded to the Local Governments and Administrations in the Public Works Department noted in the margin for information, and to the Foreign Department for communication to the Government of Mysore.

Ordered further, that this Resolution, and the Resolution by the Local Government, be published in the Supplement to the *Gazette of India*, and that copies of this Resolution be forwarded to Her Majesty's Secretary of State for India.

R. HOME, Colonel, R.E.,  
Deputy Secy. to the Government of India.

#### IRRIGATION.

#### THE CANAL REVENUE REPORT FOR 1887-88.

No. 458 I.A., dated Calcutta, the 18th March 1889.

RESOLUTION—By the Government of Bengal, Public Works Department.

Read—

The Canal Revenue Reports for 1887-88 and the Chief Engineer's Note on the same.

The total outlay, direct and indirect, to the close of the year 1887-88 on canals in Bengal of which Capital accounts are kept has been Rs. 7,06,14,592. Of this sum, Rs. 8,66,000 have been contributed by the Imperial Government from Famine Relief and Insurance Funds, Rs. 92,24,652 have been provided from Provincial Revenues, and Rs. 5,97,49,285 have been charged to Loan Funds. In addition to the sums mentioned above, Rs. 7,74,655 have been expended on surveys and investigations for irrigation works which have not been carried out.

2. There are now in actual operation in Bengal 844 miles of canal, of which 614½ miles are navigable. The total area commanded by irrigation canals is 2,698,846 acres; of which area, 1,768,811 acres are irrigable by the completed projects, and 1,398,147 acres are irrigable by the existing works.

Of this last area, 475,138\* acres, producing crops of the estimated value of Rs. 90,70,980, were irrigated during the year. The total number of boats plying in the canals was 190,839, of which 24,709 were passenger boats. The total value of goods passing through the canals in boats and rafts aggregated Rs. 9,08,97,988 approximately.

3. The receipts from, and expenditure on, the canals in operation for the last three years are given in the statement below; the figures include indirect charges :

Name of Canal.	1887-88.		1886-87.		1885-86.	
	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.
<b>MAJOR IRRIGATION WORKS.</b>	Rs.	Rs.	Rs.	Rs. *	Rs.	Rs.
Orissa Canals ... ..	2,23,044	5,02,815	1,79,611	5,20,635	2,07,350	3,56,678
Midnapore Canal ... ..	2,34,378	2,50,849	2,34,185	2,35,249	2,62,484	2,18,127
Hidgellee Tidal Canal ... ..	41,858	66,976	54,404	23,645	52,455	50,147
Sone Canals ... ..	6,03,949	7,67,679	2,18,429	6,13,558	10,62,646	5,84,002
<b>TOTAL</b> ... ..	<b>11,03,229</b>	<b>16,88,319</b>	<b>13,86,629</b>	<b>13,93,087</b>	<b>15,84,935</b>	<b>12,08,954</b>
<b>MINOR WORKS AND NAVIGATION.</b>						
<i>Irrigation and Navigation Works.</i>						
Saran Canals ... ..	20,665	29,397	12,427	28,659	41,143	23,331
Calcutta and Eastern Canals ... ..	5,79,934	2,24,656	4,83,654	1,92,264	4,79,484	1,96,209
Orissa Coast Canal ... ..	53,854	83,524	29,488	61,426	13,718	30,712
<b>TOTAL</b> ... ..	<b>6,54,453</b>	<b>3,37,577</b>	<b>5,25,569</b>	<b>2,82,349</b>	<b>5,34,345</b>	<b>2,50,252</b>
<b>GRAND TOTAL</b> ..	<b>17,57,682</b>	<b>19,25,896</b>	<b>19,12,198</b>	<b>16,75,436</b>	<b>21,19,280</b>	<b>14,59,206</b>

There was thus a deficit for the year of Rs. 1,68,214. In addition to this, interest amounting to Rs. 23,13,446 was payable to the Imperial Government, so that the total deficit to be met from Provincial Revenues was Rs. 24,81,660. The unfavourableness of the results for the last three years has thus been increasing, the deficits in 1885-86 and 1886-87 having been Rs. 15,89,119 and Rs. 19,56,284 respectively, and is again due both to falling off in receipts and increase in expenditure (though much more to the former than the latter) as compared with the previous year.

4. The increase in expenditure is to a very large extent a purely nominal one, so far as the Provincial Revenues are concerned, and is due to a new method of accounting for the establishment, the charges for which are distributed approximately according to the establishments actually employed in divisions, instead of the Irrigation Department being assessed, as heretofore, with a fixed charge by percentage on expenditure, the remainder of the cost of establishment being shown against the Roads and Buildings Branch. The present method appears to be the fairer, and at any rate it shows in a clearer light what is the cost of establishment employed on the various canals. Chiefly on account of this alteration, the charges for Direction and Executive Establishments have increased by Rs. 2,12,967 as compared with last year, thus nearly accounting for the total increase in the working expenses. On the Orissa Canals there was, on the whole, a fair decrease, notwithstanding the increase in establishment charges, and the fact that a portion of the expenditure on repairing the breach made in the Mahanudi weir during the floods of 1886 fell in the year under review. On the Hidgellee Tidal and Orissa Coast Canals there was an increase, due, in the former case to the necessity for carrying out the long-postponed silt clearance, and in the latter to the repairing damages caused by the cyclone of 1885. The comparatively small fluctuations on the other canals do not call for remark.

\* Exclusive of 5,975 acres irrigated in an unauthorised manner in the Orissa Canals, and 13,855 acres of hot weather irrigation on the Sone Canals: this latter irrigation is almost entirely sugarcane, and is included already in the kharif.

5. The revenue collected in the last three years on the works mentioned in the above statement is shown below :

Head.	REVENUE.		
	1887-88.	1886-87.	1885-86.
	Rs.	Rs.	Rs.
Water-rates ... ..	7,69,362	10,43,343	12,33,612
Navigation ... ..	9,21,482	7,88,685	8,34,780
Miscellaneous ... ..	66,838	80,170	50,888
TOTAL ... ..	17,57,682	19,12,198	21,19,280

It will be seen that practically the falling off is entirely under Water-rates, whilst under Navigation there is a very satisfactory increase, to which reference will be made further on. An examination of the figures by canals shows that, although there is a small falling off on the Midnapore Canal, the decrease under Water-rates is otherwise wholly on the Sone Canals, there having been satisfactory increments both on the Orissa and Sarun Canals. The decrease on the Sone Canals is due to three causes : *Firstly*, the good collecting work of the year or two immediately preceding the year under review had largely diminished the arrears, so that there was actually less to collect ; *secondly*, the comparatively small area irrigated in 1886-87 reduced the amount of the current demands ; and *thirdly*, the agitation amongst the cultivators, which retarded the collections, so that there was a considerable increase in the closing balance as compared with the opening balance of the year.

6. The assessments or earnings of the same year are as follows :

Head.	EARNINGS.		
	1887-88.	1886-87.	1885-86.
	Rs.	Rs.	Rs.
Water-rates ... ..	10,00,489	9,49,260	10,45,339
Navigation ... ..	9,21,482	7,88,685	8,34,780
Miscellaneous ... ..	66,838	80,171	90,431
TOTAL ... ..	19,88,809	18,18,116	19,70,000

Judged by the standard of earnings, the working of the year would show for all canals a small excess over expenditure of Rs. 62,913.

7. The arrears of water-rates outstanding at the close of each of the last three years are shown in the statement following :

Name of Canal.	ARREARS.		
	1st April 1886.	1st April 1887.	1st April 1888.
	Rs.	Rs.	Rs.
Orissa Canals ... ..	92,109	87,458	64,884
Midnapore Canal ... ..	56,493	50,749	69,972
Sone Canals ... ..	4,11,281	2,31,582	3,98,321
Sarun Canals ... ..	27,265	26,437	15,912
TOTAL ... ..	5,87,148	3,96,226	5,49,089

The increase in the outstanding balance is practically wholly on the Sone Canals, where, as already explained, the agitation amongst the cultivators and appointment of a Committee of Enquiry retarded the collections very seriously. The remissions were comparatively small, and were less even than those of last year.

8. It is necessary to distinguish between the collections of arrears and those of the current demand to understand clearly the results of the year's work. Of the outstandings of former years, a sum of Rs. 3,26,147, or over 76 per cent., was adjusted; 89.1 per cent. of this amount being collected, 4.9 remitted, and 6.0 written off. On the whole, this is more favourable than last year, and the success was undoubtedly due in a great measure to the arrears in the Shahabad district having been collected before the agitation on the Sone Canals began. Of the current year's demand (which includes Rs. 1,80,559 due but not payable till after the expiry of the year), Rs. 4,59,375, or about 50 per cent. only, was adjusted, about 1 per cent. of this having been remitted, and the rest, with the exception of a small sum of Rs. 86 written off, collected. The results cannot be considered satisfactory, but so far as the Sone Canals are concerned, the falling off in the results is fully accounted for by the agitation to which reference has already been made. Notwithstanding however this difficulty, the Sone Canals, as a whole, show better results than Orissa or Midnapore, in neither of which was 50 per cent. of the current year's demand collected. A considerable sum—some Rs. 19,000—was again written off as irrecoverable on account of old arrears on the Sone Canals, chiefly in the Shahabad district. In the Sarun Canals the total collections were a few hundred rupees short of the current year's guarantee, so that there was a slight increase in the outstanding balance as compared with the previous year. This is a vast improvement on the work of last year, but is still unsatisfactory. Excluding the sum due but not payable until after the close of the year, the total outstandings amount to Rs. 4,56,589. On the whole, and making allowances for the abnormal difficulties on the Sone Canals, the results can scarcely be deemed very unsatisfactory; and the Lieutenant-Governor notices with approval that the matter continues to receive the attention of the district officers. The necessity however to reduce the arrears, which still amount for years previous to the year under review to about a lakh of rupees, has not ceased; and Sir Stuart Bayley trusts that the subject will receive attention, especially in Orissa, which, on the whole, is the most backward in this respect.

9. The total number of certificates for the recovery of arrears issued in all districts, save Gya (the figures for which are not given! but they were very few during the year), was 28,805 against 30,504 issued in the previous year; and the pending cases were reduced from 28,953 to 19,369, good progress having been made in Orissa and in Shahabad. The progress however in Midnapore was not good, whilst the work in Patna, owing apparently to shortness of establishment, was very unsatisfactory. The reduction in the number of certificates issued continues.

10. The information regarding complaints, though fuller than that given last year, is still very incomplete. So far as can be gathered from the figures afforded in the reports, 10,332 complaints against assessments were pending from the previous year, or filed during the year, on the "Major works" systems: of these, 8,120 were disposed of, leaving 2,212, or rather more than 21 per cent., still pending. Considering the circumstances of irrigation in Bengal, the number filed, although large, does not appear to be out of proportion on the whole, though the following table would seem to show that there is considerable room for improvement on the Orissa Canals in the assessment of water-rate and administration generally; since not only were the complaints more in proportion to the area irrigated than even on the Sone Canals, where



the number was abnormally raised by agitation, but the percentage of complaints admitted was very high :

	ORISSA.		MIDNAPORE.		SONE.		TOTAL.	
	No.	Percentage on cases disposed of.	No.	Percentage on cases disposed of.	No.	Percentage on cases disposed of.	No.	Percentage on cases disposed of.
Pending or filed during the year	2,743	.....	841	.....	6,748	.....	10,332	.....
Disposed of { Admitted ...	1,109	89.4	285	37.6	2,265	37.3	3,679	45.3
{ Dismissed ...	131	10.6	472	62.4	3,838	62.7	4,441	54.7
Total ...	1,240	100.0	757	100.0	6,123	100.0	8,120	100.0
Pending on 31st March 1888 ...	1,503	.....	84	.....	625	.....	2,212	.....
Area irrigated in 1887-88 (Acres)	1,09,506		65,864		315,380		490,750	
Proportion of acres irrigated to one complaint ...	39.9		78.3		46.7		47.5	

The above table, for want of the necessary details, is not quite correct as regards the proportion of acres to one complaint, inasmuch as it has been impossible to separate the arrears from the complaints filed in the year, whilst the area for the year has been taken. Still for practical purposes of comparison it can be accepted ; and the Lieutenant-Governor trusts that the above comparison will show the officers concerned of the Orissa Canals the necessity for greater care in assessing water-rates and in the administration of their duties generally.

11. The areas irrigated (actuals) during the last three years are detailed in the following table :

					1887-88.	1886-87.	1885-86.	
					Acres.	Acres.	Acres.	
Orissa...	{	Kharif	...	...	108,867	75,115	70,563	
		Rabi	...	...	502	2,440	1,605	
		Perennial	...	...	137	154	171	
		Total	...	...	109,506	77,709	72,339	
Midnapore	...	Kharif	...	...	65,864	69,762	70,604	
Sone...	{	Kharif	...	...	57,595	30,082	30,792	
		Rabi	...	...	27,501	16,662	50,610	
		Perennial	...	...	6,265	11,626	10,527	
		Hot weather	...	...	13,855	15,278	10,857	
		Five years' lease	...	...	210,164	194,558	179,784	
		Total	...	...	315,380	268,204	332,570	
Total Major Works					...	490,750	415,675	475,513
Sarun	{	Kharif	...	...	1,699	566	888	
		Rabi, including hot weather	...	...	2,519	1,560	3,677	
		Total Minor Works	...	...	4,218	2,146	4,565	
Grand Total Major and Minor Works					...	494,968	417,821	480,078

There is a very satisfactory increase on the Orissa Canals, and a satisfactory increase on the Sone Canals, due chiefly to the favourable character of the season from an irrigation point of view. Most of the increase on the Orissa Canals, and a fair proportion of that on the Sone Canals, is under long leases, so that the anticipation of an extension of irrigation expressed in the Resolution on last year's report appears to be receiving confirmation. The

irrigated area on the Midnapore Canal continues unfortunately to decrease. The cause is said to be the irregularity and insufficiency of the supply in the Cossye river; and for this hitherto no practicable remedy has been found.

12. The tollage collections from the various canals for the last three years are given in the table following:

Year.	Orissa Canals.	Midnapore Canal.	Hidgellee Tidal Canal.	Orissa Coast Canal.	Sone Canals.	Calcutta and Eastern Canals.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1885-86	64,093	1,25,331	52,143	13,663	41,712	4,97,573	7,94,520
1886-87	58,664	1,09,693	51,904	28,587	49,665	4,73,193	7,71,706
1887-88	66,628	1,26,574	40,406	52,828	50,984	5,71,872	9,09,292

The increase is about 15 per cent. on the total collections of last year, and upwards of a lakh more than the collections of any previous year since 1882-83 inclusive, from which date only the whole of the figures are readily available. The chief increase is on the Calcutta and Eastern Canals, on which there was a small defect last year. It was, however, mentioned in last year's Resolution that the decrease did not point to any permanent decline; and the figures for the year under review confirm this opinion. The increase is due to the expansion of the grain and jute traffic. The receipts on the Orissa Canals are the highest since 1882-83, when they were almost the same figures, *viz.*, Rs. 66,736, the highest on record. On the Midnapore Canal they are the highest on record, excluding transport service receipts. The falling off in the Hidgellee Tidal Canal revenue is due to the closure of the canal for silt clearance. The increase in revenue on the Orissa Coast Canal is satisfactory, being in excess of the forecast.

13. On the Nuddea rivers there was a small falling off in the receipts, attributable to the impossibility during 1887-88 of maintaining more than one of the three alternative routes between the Ganges and Calcutta in a navigable condition, on account of the deterioration of the entrances from the Ganges.

14. The Lieutenant-Governor observes that the necessity for further enquiry and the collection of opinions from experts has hitherto prevented any action being taken on the report of the Commission that enquired in 1888 into the working of the Sone Canal system. These have now been brought to a completion, and the report will be disposed of without further delay.

15. With the exception of the Revenue report of the Commissioner of the Orissa Division, all reports were received with fair punctuality. The Examiner's Finance Accounts were received about the same time as last year. Both in submitting and in dealing with the Revenue reports, there is need, in the Lieutenant-Governor's opinion, for increased punctuality.

ORDER.—Ordered, that a copy of this Resolution, and of the Note and its accompaniments, be submitted to the Government of India, in the Public Works Department, for information; also that copies be forwarded to the Appointment, Revenue and Financial Departments of this Government; the Board of Revenue, Lower Provinces; the Commissioners of the Presidency, Burdwan, Patna and Orissa Divisions; the Collectors of the 24-Pergunnahs, Nuddea, Hooghly, Midnapore, Burdwan, Patna, Shahabad, Gya, Sarun, Cuttack, and Balasore; the Superintending Engineers of the Orissa, South-Western, and Sone Circles; and the Examiner, Public Works Accounts, Bengal, for information.

By order of the Lieutenant-Governor of Bengal,

C. W. I. HARRISON, *Lieut.-Col., R.E.,*

*Offg. Joint-Secy. to the Govt. of Bengal,*

*P. W. Dept.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

NO. IV OF 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total mean length open.	RECEIPTS FOR WEEK ENDING 28TH APRIL, 1888.		Total mean length open.	RECEIPTS FOR WEEK ENDING 27TH APRIL, 1889.		TOTAL RECEIPTS FROM 1ST TO 28TH APRIL, 1888.		TOTAL RECEIPTS FROM 1ST TO 27TH APRIL, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		<i>Rs.</i>	<i>Rs.</i>		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
May, 1889	East Indian	1,514	9,80,264	648	1,514	9,63,114	636	39,39,691	651	36,61,031	605	...	2,78,660
ditto	Patna-Gya.	57	10,462	183	57	8,762	153	41,792	183	40,822	178	...	970
ditto	Dildarnagar-Ghazipur	12	1,486	124	12	1,089	91	4,724	98	3,824	80	...	900
April, 1889	Rajputana-Malwa	1,664	4,04,809	243	1,664	5,01,000	301	16,03,766	241	18,60,714	290	2,56,948	...
May, 1889	Bengal-Nagpur (a)	186	40,869	220	293	53,823	184	1,79,780	242	2,19,822	195	40,042	...
ditto	Southern Mahratta (b)	850	90,121	106	857	90,141	105	3,57,738	105	48,437	98	...	20,464
May, 1889	Do. Mysore Section	140	9,744	70	219	12,228	60	40,408	72	48,437	55	8,029	...
ditto	Indian Midland	211	(c) 26,682	126	588	(d) 69,252	118	(c) 95,304	113	(d) 2,54,273	112	1,58,969	...
ditto	Villupuram-Dharma- veram (Nellore Branch)	83	3,843	46	83	4,450	54	15,272	46	16,009	50	737	...
ditto	Bareilly-Pilibhit.	30	1,632	45	30	2,242	62	6,971	48	8,990	62	2,019	...
	<b>TOTAL</b>	<b>4,733</b>	<b>15,69,912</b>	<b>330</b>	<b>5,323</b>	<b>17,07,091</b>	<b>321</b>	<b>62,85,446</b>	<b>331</b>	<b>64,51,196</b>	<b>314</b>	<b>1,65,750</b>	...
	<i>State Lines worked by Government.</i>												
May, 1889	North-Western (c)	2,481	4,35,671	176	2,386	5,40,282	226	20,11,292	203	21,74,408	236	1,63,116	...
May, 1889	Oudh and Rohilkhand	693	1,85,321	267	692	1,78,745	258	7,04,357	255	6,79,403	245	...	24,954
ditto	Bengal Central	125	10,716	86	125	15,030	120	43,776	88	52,230	104	8,460	...
ditto	Wardha Coal	45	16,361	363	45	13,594	302	71,373	390	84,389	486	13,016	...
ditto	Eastern Bengal Rail- ways	673	1,56,540	233	673	1,80,050	267	5,49,053	204	6,20,010	234	79,957	...
May, 1889	Nallhati	27	1,846	68	27	1,373	50	7,421	68	6,023	55	...	1,398
ditto	Tirhoot	259	41,240	159	273	38,408	141	1,53,443	148	1,45,354	133	...	8,089
May, 1889	Lucknow-Sitapur	105	6,166	59	105	6,608	63	20,767	40	24,793	59	4,026	...
ditto	Sihramau	31	962	31	31	807	28	3,159	25	4,170	34	1,011	...
ditto	Jorhat	7	55	7	7	39	5	200	9	170	6	...	90
April, 1889	Cherra-Companyganj.	333	59,080	177	553	99,841	181	2,60,483	196	3,90,070	176	1,29,587	...
ditto	Burma												
	<b>TOTAL</b>	<b>4,779</b>	<b>9,13,964</b>	<b>191</b>	<b>4,917</b>	<b>10,74,837</b>	<b>219</b>	<b>38,25,384</b>	<b>200</b>	<b>41,90,026</b>	<b>221</b>	<b>3,64,642</b>	...
	<i>Lines worked by Guaranteed Companies.</i>												
May, 1889	Madras	840	1,79,934	214	840	1,92,015	229	6,57,947	196	6,84,320	211	26,382	...
ditto	South Indian	654	1,12,004	171	654	1,11,223	170	4,19,622	160	4,30,977	171	11,355	...
ditto	Great Indian Penin- sula	1,504	(f) 12,27,070	819	1,447	(g) 9,98,033	690	(f) 46,65,363	776	(g) 38,66,861	693	...	7,98,502
April, 1889	Bombay, Baroda and Central India (h)	461	3,36,212	729	461	3,56,000	772	13,42,150	728	13,23,286	744	...	18,864
	<b>TOTAL</b>	<b>3,459</b>	<b>18,56,180</b>	<b>537</b>	<b>3,402</b>	<b>16,57,271</b>	<b>487</b>	<b>70,85,082</b>	<b>512</b>	<b>63,05,453</b>	<b>460</b>	...	7,79,629
	<b>GRAND TOTAL (GUARANTEED AND STATE)</b>	<b>12,991</b>	<b>43,40,056</b>	<b>334</b>	<b>13,642</b>	<b>44,39,199</b>	<b>325</b>	<b>1,71,95,912</b>	<b>331</b>	<b>1,69,46,675</b>	<b>322</b>	...	2,49,237
	<b>GROSS ESTIMATED EXPENSES</b>	...	...	...	...	...	...	76,47,022	147	75,41,270	144	...	1,05,752
	<b>NET RECEIPTS</b>	...	...	...	...	...	...	95,48,890	184	94,05,405	178	...	1,43,485
	<i>Assisted Companies.</i>												
May, 1889	Tarakeshwar	22	5,815	261	22	5,357	241	33,003	371	29,230	328	...	3,773
April, 1889	Dibru Sadiya	78	8,137	104	78	10,831	139	33,729	108	37,976	122	4,247	...
May, 1889	Bengal and North- Western	376	67,912	181	376	53,740	143	2,10,816	140	2,16,434	149	5,618	...
May, 1889	Rohilkhand-Kumaun	67	9,146	138	67	8,035	120	34,343	128	32,848	123	...	1,495
	<b>TOTAL</b>	<b>543</b>	<b>91,110</b>	<b>168</b>	<b>543</b>	<b>77,953</b>	<b>144</b>	<b>3,11,891</b>	<b>144</b>	<b>3,16,488</b>	<b>151</b>	<b>4,597</b>	...
	<i>Native States.</i>												
May, 1889	His Highness the Ni- zam's (Guaranteed Company)	277	31,239	113	354	43,923	124	1,35,566	122	1,71,430	126	35,864	...
April, 1889	His Highness the Gaekwar's	59	5,290	90	59	2,220	38	16,970	72	13,350	58	...	3,730
ditto	His Highness the Gaek- war's Verangam- Mehsana-Vadnagar	21	1,263	60	27	1,100	40	5,035	60	5,007	48	...	28
May, 1889	Bhavnagar-Gondal	193	26,417	137	260	37,757	145	1,16,922	151	1,55,097	155	38,175	...
ditto	Porbandar	68	6,622	97	68	5,913	87	21,416	79	21,701	80	285	...
April, 1889	Morvi	124	8,146	66	124	7,700	62	23,875	60	31,414	66	1,539	...
	<b>TOTAL</b>	<b>742</b>	<b>78,977</b>	<b>106</b>	<b>892</b>	<b>98,613</b>	<b>111</b>	<b>3,25,784</b>	<b>110</b>	<b>3,97,899</b>	<b>116</b>	<b>72,115</b>	...

(a) Includes the Katni-Umaria Branch.  
(b) Includes the Bellary-Kistna State Railway.  
(c) Includes the Sindia State Railway.  
(d) Includes the Sindia and Bhopal-Itarsi State Railways.  
(e) Includes the Amritsar-Pathankot and Rajpura-Bhatinda State Railways.

(f) Includes the Dhond-Manmad, Khamgaon, Amraoti, and Bhopal-Itarsi State Railways.  
(g) Includes the Dhond-Manmad, Khamgaon, and Amraoti State Railways.  
(h) Includes Patri Branch.

M. C. BRACKENBURY, Major, R.E.,  
Officiating Deputy Secretary.

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Bombay, 23rd May, 1889.

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SUPPLEMENT TO  
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**OFFICIAL PAPERS.**

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor-General will in future be published in PART VI. of the GAZETTE.*

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GOVERNMENT OF INDIA.

REVENUE AND AGRICULTURAL DEPARTMENT.

WEATHER SUMMARY FOR APRIL 1889.

Hot weather conditions, which are initiated in the month of March, are confirmed and developed during April. The distribution of pressure, which during March is subject to large and sudden fluctuations, sometimes approximating to hot weather conditions and at others reverting suddenly to those characteristic of the cold season, is much more stable and continuous during April. The larger atmospheric storms which in late seasons sometimes disturb the weather of March are almost unknown during April, and any storms which appear are almost invariably of local character, produced by the large contrasts of temperature which prevail between the heated plains on the one hand and the relatively cool mountain and sea-surfaces on the other. Under the influence of the steady increase of temperature, which is characteristic of this month, there ordinarily occurs a considerable decrease of pressure. This decrease varies directly with the changes of temperature,—being least in the extreme south, where the average rise of temperature is about 5°, and greatest in Upper and North-Western India, where the average rise of temperature is about 10°. The general distribution of pressure is similar in many respects to that obtaining in March, but the high readings, which in the earlier month are shown over the Punjab and Sind, disappear or are very much contracted in the later month. Pressure is high over the West Coast, over Ceylon, over the centre and south of the Bay, and over Tenasserim. From these regions it steadily

A



decreases, and areas of low pressure are shown over the eastern portions of the Central Provinces, over the Gangetic plain, and over the Western desert.

Roughly speaking, there is then an area of deficient pressure over the whole of Northern and Central India and a general indraught of winds, circulating in the ordinary manner, towards this region. Within the low pressure area itself however, instead of the small air motion, which is the ordinary characteristic of such a distribution, there are strong north-westerly and westerly winds. These winds are the hot winds of the Indian plains. They spring up about 9 or 10 in the morning and blow with considerable force till 4 or 5 in the evening or later. The temperature distribution of April is very simple. Temperature is highest over the Deccan and the Central Provinces, whence it decreases in all directions. It is lowest in the north of the Punjab and at the head of the Assam Valley, between which places and the region of greatest heat there is a mean difference of about  $15^{\circ}$ .

The normal rainfall of April is greater than that of March over Bengal (except Behar) and over the Peninsula and Ceylon, but is less in Upper India and over the central parts of the country. The whole of the rainfall, except perhaps that in the extreme south, is mainly due to the occurrence of thunderstorms and nor'westers.

During the month under review the weather has been, as is usually the case, fairly quiet, the only disturbing features being local thunderstorms, and these have on the whole been less intense than normally, and much less than those which occurred during April 1888. The variations of pressure from the average have in general been slight. They comprise a slight deficiency over Burma, Bengal, Malabar, Sind, and the East of the Peninsula, and an excess elsewhere. There have been no travelling depressions of any importance during the past month, though over Sind and the Punjab tendencies favouring the formation of depressions appear to have existed, while the excessive heat which prevailed over parts of Bengal, the North-Western and Central Provinces during a part of the month resulted in low pressures over those regions.

*Temperature.*—The temperature changes during the month have been large, and the contrasts between different parts of the Indian region considerable. During the first few days there was a considerable excess over North-Western India and a considerable deficiency over Bengal, but a fall commenced in the extreme north-west on the 5th, and the high temperature area began an easterly movement, which eventually carried it to Bengal, and finally into Assam and Burma. On the 9th a fresh wave of high temperature was shown over the Western Punjab, and this wave in its turn marched across Northern India, though less distinctly than the former. On the 14th a third wave of high temperature appeared in the Indus Valley. By the 15th it had spread out eastward and embraced the whole of the Punjab, Western Rajputana, Sind and Guzerat, and from this date it continued to extend its limits till by the 20th it had spread over practically the whole of India. On the 21st the rear trough of the wave showed itself in the shape of deficient temperatures in the Indus Valley. The movement then became more rapid. The apex of the wave passed quickly eastward across Bengal to Burma; the trough passed quickly across Rajputana, &c., to the Central Provinces, and was followed by another wave of heat in the Punjab. On the 25th the mean temperature was  $8.7^{\circ}$  above the normal at Dera Ismail Khan,  $11.6^{\circ}$  below the normal at Jubbulpore, and  $6^{\circ}$  above the normal at Sibsagar,

Thyetmyo, and Tounghoo. These conditions lasted in a modified degree till the 29th, when the trough over the central parts of the country largely filled up and high temperatures were experienced everywhere. The hottest part of India absolutely was the Berars and the Deccan and, relatively to the average, Eastern and Lower Bengal.

*Rain.*—Except in Assam and Cachar, the normal average rainfall of April is a very small quantity. Yet over nearly the whole of Northern India, and also in the Deccan and Lower Bengal, even, this small average was not reached. In the Peninsula and the central parts of the country the average was exceeded, and in Ceylon there was a considerable excess, owing largely to the exceptionally heavy fall which occurred in the extreme south on the 24th.

The following table shows the actual average rainfall and the normal rainfall of the month of the twenty-one districts into which the country is divided, so far as it is indicated by the telegraphic reports of a few stations in each district :

Districts.	Number of stations.	Normal average rainfall in April.	Actual average rainfall in April 1889.	Difference from the average in April 1889.
Punjab, West . . . . .	7	1'42	1'61	+0'19
" East . . . . .	4	0'87	0'27	—0'60
North-Western Provinces, Trans-Gangetic . . . . .	7	0'42	0'04	—0'38
" " Cis-Gangetic . . . . .	3	0'12	0'27	+0'15
Behar . . . . .	2	0'17	0	—0'17
North Bengal . . . . .	3	2'15	1'16	—0'99
Assam—Cachar . . . . .	3	9'58	7'79	—1'79
Lower Bengal and Chutia Nagpur . . . . .	8	2'38	1'43	—0'95
Orissa—North Circars . . . . .	5	0'40	0'55	+0'15
Central Provinces, South . . . . .	7	0'18	0'96	+0'78
Berar—Khandeish . . . . .	2	0'01	1'15	+1'14
Rajputana, Central India, Saugor, and Nerbudda . . . . .	9	0'15	0'28	+0'13
Sind—Cutch . . . . .	3	0'17	0'43	+0'26
Guzerat . . . . .	3	0	0	0
Konkan . . . . .	4	0'05	0'08	+0'03
Deccan—Hyderabad . . . . .	5	0'72	0'58	—0'14
Malabar . . . . .	5	1'87	3'21	+1'34
Mysore—Bellary . . . . .	4	1'17	2'49	+1'32
Carnatic . . . . .	6	0'79	2'89	+2'10
Lower Burma . . . . .	7	1'57	0'22	—1'35
Ceylon . . . . .	1	11'28	15'13	+3'85

W. L. DALLAS,

SIMLA, 19th May, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weather Review of India for the week ending 8 a.m. on  
Monday, May 27th, 1889.**

The weather during the past week has been remarkably unsettled for the time of year. Rain has fallen in the great majority of districts, and temperature has been lowered in most parts of India to far below the normal.

The Chart of the 21st showed slight depressions off the Madras Coast, over the Central Provinces and West Bengal, and over Sind, while high pressures were reported from the West Coast of the Peninsula and from Assam and Upper Burma. On the 22nd the only change of importance was the westerly advance of the Central Provinces depression, the centre of which then lay near Hoshangabad. The depressions off the Madras Coast and over Sind still held, and a fresh disturbance was apparently forming over the eastern half of the Bay. The high pressures were practically unchanged. On the following day, the 23rd, the depression off the Madras Coast had apparently broken up, while that which was forming over the east of the Bay had developed considerably and had become a large, shallow, irregularly shaped depression. At the same time a barometric rise had taken place in the Punjab and west of the North-Western Provinces, and a band of relatively high pressure had been developed along the foot of the North-West Himalayas, with a trough of low pressure across the head of the Peninsula and the Central parts of the country. This distribution is characteristic of the rainy season. On the 24th the depression which had formed over the Bay had moved westward or north-westward and was advancing into Bengal. On the 25th it had advanced as far as the Central and North-Western Provinces, but was apparently filling up, as the barometer was rising generally. On the 26th pressure was still rising, and the position of the depression was almost unchanged, but a small centre had been formed off the Madras Coast, while a shoulder of relatively high pressure had been developed, extending north-eastward from Guzerat through Central India and Rajputana to the North-Western Provinces. On the 27th the distribution was very simple, relatively low pressures existing over Sind on the one hand and over Bengal, the north and west of the Bay, and the east of the Peninsula on the other, with an intervening shoulder of high pressure over Guzerat, Central India, and Rajputana. The differences in pressure have been much slighter than is normally the case at this season of the year, and the general distribution has been abnormal. The columns of barometric variations have shown that pressure on most days of the week has been most abnormally high for the time of year over North-Western and Central India. As these regions are ordinarily the seat of the lowest pressure, it follows as a consequence that there have not been the usual differences of pressure between this region and places to the south-south-east and east of it, and with this diminution of pressure differences there has been a diminution in the air motion towards Central and Upper India.

*Winds* have been very variable in direction, being influenced by the various depressions which have appeared over India during the week. During

the passage of the small dust and thunder storms, which have been one of the results of the unsettled conditions, the wind has frequently blown with considerable force and on some occasions with actual violence, but the directions have varied with the passage of the storm, and the moderately strong steady winds, which are ordinarily characteristic of this month over a great part of India, have been absent.

*Temperature* became remarkably low over nearly the whole of India during the week. On the 21st the mean average temperature of the different Provinces was in excess for nearly the whole of India, but on the 22nd a sudden and considerable fall took place over the North-Western Provinces and spread over nearly the whole of Northern and Central India. In the Peninsula there was still an excess. On the 23rd there was some increase in the intensity of the depression of temperature, as well as a southward advance of the cool area. On the 24th the only Provinces reporting an excess of temperature were Burma and Madras, and the deficiency over the Gangetic plain was most remarkable. These conditions lasted until the close of the week, with the result shown in the following table :

PROVINCE.	Difference of mean temperature from normal.
Burma	+ 1.8°
Bengal	— 2.2°
North-Western Provinces	— 6.3°
Punjab	— 4.4°
Bombay	+ 0.5°
Central Provinces and Berar	— 4.3°
Guzerat, Central India	— 4.5°
Sind and Rajputana	— 2.8°
Madras	+ 2.2°

These figures deal only with the mean average temperatures of the various Provinces, but by dealing with the maxima of individual stations, the remarkable coolness of the past week becomes much more strongly emphasised : thus—

At Gorakhpur on the 21st the maximum was 86.8°, or 16.9° below normal.

At Lucknow on the 21st the maximum was 91.3°, or 15° below normal.

At Patna on the 22nd the maximum was 87.9°, or 15° below normal.

At Benares on the 23rd the maximum was 90.8°, or 16° below normal.

At Allahabad on the 23rd the maximum was 92.4°, or 16° below normal.

At Delhi on the 23rd the maximum was 87.1°, or 19° below normal.

At Lahore on the 23rd the maximum was 85.1°, or 19° below normal.

At Ludhiana on the 24th the maximum was 83.2°, or 22° below normal.

At the close of the week temperature was rising again almost everywhere, but the average was still much below the normal.

*Rain* has been much more general and heavier during the present than during the past week. In no single division has there been an entire absence of rain, though in some there has again been a deficiency. It is important, however, to remember that, as was the case last week, the normal rainfall of a large number of the divisions of India for this week is very small, and hence, while the percentage variations may appear large, they are in reality often founded on a comparatively small excess or defect of rain.

Of the fifty-one divisions into which India has been divided for rainfall purposes, two have not sent in any returns, twenty-four report an excess of rain, and

twenty-three a deficiency of rainfall, while in one division there is no departure from the average and in another no comparison can be made.

In Burma the division of Tenasserim reports an excess of rain for the week and for the season, but the other divisions of that Province, as well as the whole of Assam and Eastern, Deltaic, and North Bengal, show a deficiency, both in the weekly and seasonal fall, though in several divisions the deficiency is small. In Central Bengal and from that division westward and north-westward through Chota Nagpur, Behar, the North-Western Provinces as far as the west of the Punjab, the weekly fall has largely exceeded the normal, and in many parts of this region the seasonal rainfall is also surpassed. In Malabar and Bombay the fall has been short, while in the Berar there has been an excess and in the Central Provinces a deficiency. In the divisions of Kattiawar and Guzerat there appears to have occurred a series of heavy local storms, and the normal rainfall of that region has been exceeded many times, so that the seasonal rainfall shows an excess from six to nine times as great as the average rain for the period. Central India East and Rajputana have participated in a modified degree in this excessive rain. Over the whole of Madras the rainfall has been short, but not by very large amounts.

The returns of maximum falls show no very large falls in the Eastern Provinces, though Burma and Central Bengal report amounts between 4 and 7 inches. In the North-Western Provinces and the Punjab the maxima were relatively large, one station in the Kumaun district registering nearly 4 inches, one station in the Montgomery district  $2\frac{1}{2}$  inches, and one station in the Bannu district  $3\frac{1}{2}$  inches. In Bombay there were no heavy falls, and a large part of the Deccan was almost rainless. The Berar and Central Provinces had frequent but light showers. In Guzerat and Kattiawar the rainfall was remarkably heavy.

Kaira received 3 inches.

Kalal (Panch Mahals),  $3\frac{1}{2}$  inches.

Veramgam (Ahmedabad),  $3\frac{1}{2}$  inches.

Wadhwan (Kattiawar),  $2\frac{1}{2}$  inches.

Sind was nearly rainless, while Central India and Rajputana received frequent, though in general slight showers. Ganjam had several falls exceeding 2 inches, but south of Ganjam in the east of the Peninsula the falls were generally moderate or light.



Province.	Division.	RAINFALL DATA FOR WEEK ENDING MAY 27TH, 1889.			RAINFALL DATA FROM MAY 13TH TO MAY 27TH, 1889.		
		Average actual rainfall of division.	Average nor- mal rainfall of division.	Excess or defect, in inches.	Average actual rainfall of season to date.	Average nor- mal rainfall, May 13th to May 27th.	Excess or de- fect of (season- al) rainfall expressed as a per- centage.
		Inches.	Inches.	Inches.	Inches.	Inches.	Per cent.
BURMAH	Tenasserim . . . . .	8.89	6.30	+2.59	11.62	10.35	+ 12
	Lower Burmah . . . . .	2.13	3.31	-1.18	2.67	5.90	- 55
	Central Burmah . . . . .	1.26	2.14	-0.88	1.77	4.20	- 58
	Upper Burmah . . . . .	0.38	?	?	0.57	?	?
	Arakan . . . . .	1.20	2.44	-1.24	2.56	8.31	- 69
BENGAL AND ASSAM	Eastern Bengal . . . . .	1.55	2.18	-0.63	3.48	3.76	- 7
	Assam (Surma) . . . . .	2.10	3.96	-1.86	6.10	8.55	- 29
	Do. (Brahmaputra) . . . . .	0.88	2.37	-1.49	3.64	5.29	- 31
	Deltaic Bengal . . . . .	1.04	1.48	-0.44	1.86	2.46	- 24
	Central Bengal . . . . .	1.48	1.25	+0.23	2.18	2.26	- 31
	North Bengal . . . . .	1.95	3.42	-1.47	3.35	5.46	- 39
	Orissa . . . . .	1.78	0.73	+1.05	2.16	1.40	+ 54
	Chota Nagpur . . . . .	1.19	0.57	+0.62	1.21	1.17	+ 3
	Behar (South) . . . . .	0.84	0.38	+0.46	0.84	0.82	+ 2
	Do. (North) . . . . .	1.11	0.66	+0.45	1.11	1.15	- 3
NORTH-WESTERN PROVINCES AND ODDH.	North-Western Provinces (East). . . . .	0.92	0.09	+0.83	0.92	0.23	+300
	Oudh (South) . . . . .	0.49	0.22	+0.27	0.49	0.34	+ 44
	Do. (North) . . . . .	0.89	0.31	+0.58	0.89	0.59	+ 51
	North-Western Provinces (Central). . . . .	0.24	0.12	+0.12	0.26	0.19	+ 37
	North-Western Provinces (West). . . . .	0.29	0.17	+0.12	0.29	0.30	- 3
	North-Western Provinces (Submontane). . . . .	0.49	0.27	+0.22	0.51	0.54	- 6
PUNJAB	Punjab (South) . . . . .	0.93	0.11	+0.82	0.56	0.32	+200
	Do. (Central) . . . . .	0.46	0.14	+0.32	0.46	0.36	+ 28
	Do. (Submontane) . . . . .	0.70	0.14	+0.56	0.75	0.44	+ 70
	Do. (Hill Districts) . . . . .	1.56	0.88	+0.68	1.61	1.61	0
	Do. (North-West) . . . . .	0.93	0.33	+0.60	1.13	0.64	+ 77
	Do. (West) . . . . .	0.50	0.18	+0.32	0.52	0.26	+100
BOMBAY AND MALA- BAR COAST DIS- TRICTS (MADRAS).	Malabar . . . . .	0.33	3.16	-2.83	1.94	5.58	- 65
	Madras (South Central) . . . . .	0.23	0.92	-0.69	1.09	1.87	- 41
	Coorg . . . . .	1.14	2.25	-1.11	2.68	3.65	- 27
	Mysore . . . . .	...	...	...	...	...	...
	Konkan . . . . .	0.23	0.47	-0.24	0.48	0.60	- 20
	Bombay Deccan . . . . .	0.12	0.61	-0.49	0.65	1.04	- 38
	Hyderabad (North) . . . . .	...	...	...	...	...	...
	Khandeish . . . . .	0.16	0.49	-0.33	0.25	0.63	- 60
CENTRAL PROVINCES AND BERAR.	Berar . . . . .	0.37	0.11	+0.26	0.38	0.17	+124
	Central Provinces (West) . . . . .	0.10	0.18	-0.08	0.10	0.25	- 60
	Ditto (Central) . . . . .	0.12	0.20	-0.08	0.12	0.31	- 61
	Ditto (East) . . . . .	0.20	0.20	0	0.32	0.39	- 18
BOMBAY (NORTH)	Guzerat . . . . .	1.81	0.05	+1.76	1.81	0.18	+906
	Kattiawar . . . . .	0.48	0.04	+0.44	0.48	0.07	+586
	Sind . . . . .	0.01	0.03	-0.02	0.01	0.05	- 80
RAJPUTANA AND CEN- TRAL INDIA.	Central India (East) . . . . .	0.67	0.19	+0.48	0.68	0.28	+143
	Rajputana (East), Central India (West). . . . .	0.75	0.24	+0.51	0.75	0.40	+ 88
	Rajputana (West) . . . . .	0.34	0.22	+0.12	0.34	0.33	+ 3
MADRAS	East Coast (North) . . . . .	0.74	0.95	-0.21	0.96	2.06	- 53
	Hyderabad (South) . . . . .	0.04	0.30	-0.26	0.08	0.55	- 85
	Madras (Central) . . . . .	0.20	0.60	-0.40	0.44	1.04	- 58
	East Coast (Central) . . . . .	0.15	0.47	-0.32	0.38	0.92	- 59
	Ditto (South) . . . . .	0.36	0.74	-0.38	0.60	1.40	- 57
	Madras (South) . . . . .	0.28	0.40	-0.12	0.70	0.96	- 27

W. L. DALLAS,

SIMLA, 30th May, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and prospects of the Crops.

**Madras.**—*For week ending 25th May.*—Rainfall slight in Kistna, Nellore, Bellary, Anantapur, Kurnool, Madras, Chingleput, North Arcot, and Tinnevely, and fair in all other districts. Crops generally good, but withering in parts of Cuddapah, Anantapur, and Chingleput, and suffering from want of water in Vizagapatam, North Arcot, Coimbatore, and Salem. Water-supply scarce in Ganjam,—insufficient in parts of Nellore, Bellary, Tinnevely, and Salem. Prices rising in five northern districts and in seven others; falling in South Canara and Malabar, and stationary in the rest. Stock suffering very badly, chiefly from rinderpest, in Malabar and Tanjore and badly in Trichinopoly and Cuddapah. Cholera severe in Ganjam, 1,429 deaths during week. Labourers employed on last day of week—on Rushikulya works, 5,731; Gopalpore Canal, 5,180; five Ghat Roads, 1,461; average daily number on drinking-water tanks and wells, 10,351. General prospects favourable, except in Ganjam.

**Bombay.**—*For week ending 29th May.*—Rain in Guzerat and Southern Mahratta Country and in parts of Shikarpur, Hyderabad, Khandesh, Nasik, Thana, Ratnagiri, Ahmednagar, Sholapur, Satara, Kathiawar, and Baroda, relieving water scarcity in parts of Kathiawar. Harvesting of late crops continues in Hyderabad and Kaira; preparations for next season's crops progressing in most districts. Sowing commenced in Kaira, and progressing in Karachi, Belgaum, and Kanara. Fodder scarce in Khandesh and in parts of Karachi, Thana, Poona, Ahmednagar, Dharwar, and Baroda. Drinking-water failing in parts of Ahmednagar, and scarce in parts of Khandesh, Sholapur, and Dharwar.

**Bengal.**—*For week ending 28th May.*—Rainfall during the week has been general, and has improved the agricultural prospects generally; in some districts however the rain has been scanty and more is needed. Ploughing and sowing are now in progress and the standing crops are better. In Rungpur much of the newly sown early rice has been already injured by drought, and the prospects of this crop are also poor in Bogra, Dacca, and Faridpur. Some damage to the crops in low lands is apprehended, owing to the sudden rise of the Padma. High prices of rice and all other foodgrains continue in all districts.

**North-Western Provinces and Oudh.**—*For week ending 29th May.*—Some rain fell during week throughout the Provinces. Weather cloudy and cool. Indigo, sugarcane, and extra crops being irrigated. Markets well supplied. Prices generally steady. Condition of cattle good.

**Punjab.**—*For week ending 29th May.*—Rainfall good in most districts during the week. Prices stationary, except in Shahpur, where they are falling. Threshing operations still in progress. Ploughings for and sowings of *kharif* crops going on. Prospects of *kharif* crops fair. Cotton and sugarcane crops promising. Outturn below average in Amritsar and above in Shahpur and Dera Ismail Khan. Crops are slightly damaged by recent rain in Sialkote and Mooltan. Stock cattle are reported healthy. Fodder sufficient throughout the Province.

**Central Provinces.**—*For week ending 29th May.*—Weather cloudy with slight rain. Land being prepared for autumn sowings. Rice sowing commenced in Bilaspur. Sugarcane thriving. Water-supply deficient in most districts. Fodder scarce in Nimar and Raipur.

**Burma.**—*For week ending 25th May.*—Heavy rain fell in all districts in Tenasserim division, except in Toungoo; in other districts in Lower Burma slight rain fell, and a little rain fell in every district in Upper Burma. In Upper Burma reaping of dry-weather crops still continues, and in some districts ploughing is in

progress, and in places transplanting has commenced. Cattle-disease is severe in Prome, Toungoo, and Bhamo, and is prevalent to some extent in several other districts, but in four districts it is abating. In Myadaung the price of paddy has risen 17 per cent., and has fallen 14 per cent. in Upper Chindwin and 12 per cent. in Pyinmana. The food-supply is sufficient, except in Mawteik in Myadaung district, where slight scarcity prevails.

**Assam.**—*For week ending 29th May.*—Weather seasonable. Rainfall general. Ploughing for late rice continues. Blister blight on tea reported from Sibsagar, and red spider from Cachar. Prospects of other crops generally good.

**Mysore and Coorg.**—*For week ending 29th May.*—No rain in Civil and Military Station of Bangalore, elsewhere slight. Crops good. Sowing operations in progress in parts. Prospects generally favourable. Rain wanted in parts of Kolar, Tumkur, and Shimoga districts. No material change in prices.

Slight rain in Coorg. Prospects favourable. Health good.

**Berar and Hyderabad.**—*For week ending 29th May.*—Slight rainfall during the week in Berar. Ploughing operations in active progress. Cattle in fair condition. Fodder insufficient. Prices rising in some districts.

Slight rain during week in Hyderabad. Some scarcity of fodder and water felt. Prices stationary.

**Central India.**—*For week ending 29th May.*—There has been rain throughout Central India during the week,—heaviest at Sirdarpur and Neemuch. Land is being prepared in Bhopawar Agency for *kharif* sowings. Probable out-turn of harvest unchanged. Condition of agricultural stock generally fair. Prices of foodgrains are generally steady,—high in Bhopal Agency, and falling at Neemuch.

**Rajputana.**—*For week ending 29th May.*—Rainfall more or less throughout the Province. Agricultural operations commenced in some places. Condition of agricultural stock fair. Prices rising in Harowtee, Kishengurh, and Bhurtpore; steady elsewhere.

**Nepal.**—*For week ending 23rd May.*—Hailstorm with good rain. Hail damaged fruits of the season. Early rice and Indian corn progressing.

E. C. BUCK,

*Secretary to the Government of India.*

GOVERNMENT OF THE PUNJAB.  
PUBLIC WORKS DEPARTMENT.  
STATEMENTS OF IRRIGATION OPERATIONS ON THE INUNDATION CANALS IN THE PUNJAB FOR THE KHARIF CROP OF 1888.

STATEMENT No. 1.  
IRRIGATION OPERATIONS OF THE KHARIF CROP OF 1888 ON INUNDATION CANALS.  
*Comparative Abstract of Irrigation and Rainfall in Canal Districts of the Punjab.*

1	2	3	4	5	6	7	RAINFALL IN KHARIF MONTHS.										TOTAL.	
District.	Area in acres.	Cultivated area in acres.	AREA IRRIGATED.		COMPARISON WITH LAST CROP.		April.		May.		June.		July.		August.		September.	
			1888.	1887.	Increase.	Decrease.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.	1888.	1887.
Labore . . . . .	2,334,552	1,164,921	18,270	(1) 16,579	1,691	...	...	0'05	...	0'56	0'35	0'37	4'05	1'54	7'55	4'80	...	0'55
Montgomery . . . . .	3,567,750	357,622	66,886	(2) 60,629	6,257	...	...	...	...	...	0'50	1'20	3'00	4'60	3'80	4'10	...	7'30
Montgomery (Lower Sohag and Pera Canal)	Given above	Given above	28,707	18,008	10,699	...	...	...	...	...	...	Given above	Given above	...	...	...	...	...
Mooltan . . . . .	3,763,200	799,360	167,610	(3) 154,661	12,958	...	...	...	...	...	...	1'12	1'9	...	0'7	0'8	...	2'6
Mooltan (Sikhmai Canal)	Given above	Given above	47,989	(4) 45,320	2,669	...	...	...	...	...	...	Given above	Given above	...	...	...	...	...
Muzaffargarh . . . . .	2,007,819	397,529	139,372	133,558	5,814	...	...	...	...	...	...	1'0	...	2'1	0'3	0'9	...	0'3
Dera Ghazi Khan . . . . .	2,801,280	1,008,000	148,820	(5) 134,140	14,680	...	...	0'5	0'1	...	0'3	2'9	0'1	...	4'9	1'1	...	5'4
Gujranwala . . . . .	1,637,425	529,270	26,917	4,872	22,045	...	...	0'50	0'6	...	0'8	2'1	4'1	3'7	16'5	13'2	...	22'0
Shahpur . . . . .	3,031,700	585,491	10,391	10,449	...	58	...	0'30	0'4	...	0'4	0'8	3'5	1'1	4'6	0'6	...	8'3
Total Inundation Canals	19,143,726	4,842,193	654,971	578,210	76,813	58	...	...	...	...	...	...	...	...	...	...	...	...

(1), (2), (3), (4) and (5).—This is the correct acreage and differs from that shown in the return for kharif, 1887.

Area irrigated in 1887 . . . . . 578,210 acres.

Ditto 1888 . . . . . 654,971 "

Net increase . . . . . 76,755 "

LAHORE, 6th May, 1889.

F. J. HOME, Lieut.-Col., R.E.,  
Offg. Joint-Secy. to Govt., Punjab, P. W. D.,  
Irrigation Branch.

## STATEMENT NO. II.

## IRRIGATION OPERATIONS OF THE KHARIF CROP OF 1888 ON INUNDATION CANALS.

*Statement in Acres of Crops irrigated in Canal Districts.*

Description of Crops.	Lahore.	Montgomery.	Montgomery (Lower Sohg and Para Canal).	Mooltan.	Mooltan (Siddhai Canal).	Muzaffargarh.	Dera Ghazi- Khan.	Gujranwala (Chenab Canal).	Shahpur.	Total.
Sugarcane	19	84	2	2,677	47	7,054	35	827	50	10,795
Rice	3,883	8,863	102	8,799	3,281	25,261	23,576	9,551	64	83,380
Cotton	2,470	15,808	5,290	33,673	13,772	24,003	31,986	2,987	4,985	134,974
Indigo	...	4	...	38,739	335	34,685	14,843	...	...	88,606
Others	11,898	42,127	23,313	83,731	30,554	48,369	78,380	13,552	5,292	337,216
TOTAL 1888	18,270	66,886	28,707	167,619	47,989	139,372	148,820	26,917	10,391	654,971
TOTAL 1887	(1) 16,579	(2) 60,629	18,008	(3) 154,661	(4) 45,320	133,558	(5) 134,140	4,872	10,449	578,216

(1), (2), (3), (4) and (5).—This is the correct acreage and differs from that shown in the return for kharif, 1887.

F. J. HOME, *Lieut.-Col., R.E.,*  
*Offg. Joint-Secy. to Govt., Punjab, P. W. D.,*  
*Irrigation Branch*

LAHORE, 6th May, 1889.



## STATEMENT No. III.

## IRRIGATION OPERATIONS OF THE KHARIF CROP OF 1888 ON INUNDATION CANALS.

## Statement in Acres of Crops irrigated in Canal Divisions.

Description of Crops.	Upper Sutlej Canals.	Lower Sohg and Pira Canals.	Lower Sutlej and Chenab Canals.	Sidhnai Canal.	Muzaffargarh Canals.	Indus Canals.	Chenab Canal.	Shahpur Canals.	Total.
Sugarcane ...	103	2	2,677	47	7,054	35	827	50	10,795
Rice ...	12,746	102	8,799	3,281	25,261	23,576	9,551	64	83,380
Cotton ...	18,278	5,290	33,673	13,772	24,003	31,986	2,987	4,985	134,974
Indigo ...	4	...	38,739	335	34,685	14,843	...	...	88,606
Others ...	54,025	23,313	83,731	30,554	48,369	78,380	13,552	5,292	337,216
TOTAL 1888 ...	85,156	28,707	167,619	47,989	139,372	148,820	26,917	10,391	654,971
TOTAL 1887 ...	(1) 77,208	18,008	(2) 154,661	(3) 45,320	133,558	(4) 134,140	4,872	10,449	578,216

(1), (2), (3) and (4).—This is the correct acreage and differs from that shown in the return for kharif, 1887.

LAHORE, 6th May, 1889.

F. J. HOME, Lieut.-Col., R.E.,  
 Offg. Joint-Secy. to Govt., Punjab, P. W. D.,  
 Irrigation Branch.

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. V of 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total mean length open.	RECEIPTS FOR WEEK ENDING 5TH MAY, 1888.		Total mean length open.	RECEIPTS FOR WEEK ENDING 4TH MAY, 1889.		TOTAL RECEIPTS FROM 1ST APRIL TO 5TH MAY, 1888.		TOTAL RECEIPTS FROM 1ST APRIL TO 4TH MAY, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
18th May, 1889	East Indian	1,514	10,34,072	683	1,514	10,39,922	687	49,73,763	657	47,00,953	621	...	2,72,810
18th ditto	Patna-Gya.	57	9,383	104	57	9,708	170	51,175	179	50,530	177	...	645
18th ditto	Dildarnagar-Ghazipur	12	1,698	141	12	1,002	88	6,422	107	4,886	81	...	1,536
18th ditto	Rajputana-Malwa	1,664	3,96,896	238	1,664	4,54,000	273	20,00,662	240	23,14,714	286	3,14,052	...
18th ditto	Bengal Nagpur (a)	186	42,031	220	293	57,954	198	2,21,811	238	2,77,776	195	55,965	...
18th ditto	Southern Mahratta (b)	850	77,842	392	857	89,677	103	4,35,580	103	4,20,931	100	...	8,649
18th ditto	Do. Mysore Section	140	10,455	75	210	13,483	62	50,863	73	61,920	57	11,057	...
18th ditto	Indian Midland	211	(c) 24,071	114	588	(d) 67,801	115	(c) 1,19,375	113	(d) 3,22,074	113	2,02,699	...
	Villupuram-Dharma- veram (Nellore Branch)	83	4,452	54	83	4,010	48	19,724	48	19,882	49	158	...
18th ditto	Bareilly-Pilibhit.	30	1,746	49	30	2,450	68	8,717	48	11,440	64	2,723	...
	<b>TOTAL</b>	4,753	16,02,646	337	5,323	17,40,047	327	78,88,002	332	81,91,106	317	3,03,014	...
	<i>State Lines worked by Government.</i>												
18th May, 1889	North-Western (e)	2,481	4,22,247	170	2,386	5,05,400	212	24,33,530	196	26,79,817	231	2,46,278	...
18th ditto	Odin and Rohilkhand	693	1,68,838	244	692	1,74,739	253	8,73,255	253	8,54,342	247	...	18,913
18th ditto	Bengal Central	125	12,191	97	125	14,270	114	55,907	90	60,506	106	10,539	...
18th ditto	Wardha Coal	45	14,633	320	45	23,943	512	86,066	332	1,07,432	491	21,366	...
18th ditto	Eastern Bengal Rail- ways	673	1,39,056	207	673	1,57,800	234	6,88,109	204	7,86,810	234	98,701	...
18th ditto	Nahati	27	1,809	66	27	1,434	54	9,230	68	7,507	55	...	1,723
18th ditto	Tirhoot	259	43,439	167	273	38,200	140	1,96,079	152	1,83,604	135	...	13,075
18th ditto	Lucknow-Sitapur												
	Sitaramau	105	5,557	53	105	8,143	78	26,324	50	32,936	63	6,612	...
18th ditto	Jorhat	31	929	30	31	1,090	36	4,088	26	5,260	34	1,172	...
4th ditto	Cherra-Companyganj	7	32	4	7	31	4	292	8	201	5	...	91
18th ditto	Burma	397	74,347	203	553	1,05,703	191	3,34,830	194	5,02,016	182	1,67,186	...
	<b>TOTAL</b>	4,813	8,82,995	183	4,917	10,30,162	209	47,08,379	197	52,26,431	219	5,18,052	...
	<i>Lines worked by Guar- anteed Companies.</i>												
18th May, 1889	Madras	840	1,52,608	182	840	1,95,253	232	8,10,555	193	8,79,582	216	69,027	...
18th ditto	South Indian	634	1,12,091	172	634	1,15,644	177	5,32,313	163	5,46,701	172	14,388	...
18th ditto	Great Indian Penin- sula	1,504	(f) 11,99,553	798	1,447	(g) 8,95,854	619	(f) 38,64,916	780	(g) 47,70,276	679	...	10,94,640
18th ditto	Bombay, Baroda and Central India (h)	461	3,31,384	719	461	3,51,600	761	16,73,534	726	16,74,286	748	752	...
	<b>TOTAL</b>	3,439	17,96,236	519	3,403	15,57,751	458	88,81,318	514	78,70,845	476	...	10,10,473
<b>GRAND TOTAL (GUARANTEED AND STATE)</b>		13,025	42,81,877	329	13,642	43,27,960	317	2,14,77,789	330	2,12,8,382	321	...	1,89,407
<b>GROSS ESTIMATED EXPENSES</b>		...	...	...	...	...	...	95,90,627	147	94,73,330	143	...	1,17,297
<b>NET RECEIPTS</b>		...	...	...	...	...	...	1,18,87,162	183	1,18,15,052	178	...	72,110
	<i>Assisted Companies.</i>												
18th May, 1889	Tarakeshwar	22	6,278	282	22	5,562	250	39,281	353	34,792	313	...	4,489
27th April, 1889	Dibru Sadia	...	...	...	...	(i)	...	(j) 33,729	108	(k) 37,976	122	4,247	...
18th May, 1889	Bengal and North- Western	376	64,933	173	376	66,520	177	2,75,749	147	2,85,017	156	9,268	...
18th ditto	Rohilkhand-Kumaun	67	8,005	128	67	7,19	168	42,948	128	40,007	110	...	2,881
	<b>TOTAL</b>	465	79,816	172	465	79,304	171	3,91,707	144	3,97,852	151	6,145	...
	<i>Native States.</i>												
18th May, 1889	His Highness the Ni- zam's (Guaranteed Company)	277	28,973	105	354	39,817	112	1,64,539	119	2,11,247	123	46,708	...
18th ditto	His Highness the Gaekwar's	59	3,747	64	59	2,340	40	20,717	70	15,590	55	...	5,127
18th ditto	His Highness the Gaek- war's Verangan- Alensina-Vadnagar	21	1,248	59	27	1,400	51	6,283	60	6,407	49	124	...
18th ditto	Bhāvnagar-Gondal- Junagarh-Porbandar	193	29,267	152	260	37,250	143	1,46,183	151	1,92,347	152	46,158	...
18th ditto	Morvi	63	5,740	85	68	5,220	77	27,161	80	27,161	80	...	49
18th ditto	Jodhpore	124	8,038	70	124	6,300	51	38,533	62	37,714	63	...	819
	<b>TOTAL</b>	742	77,642	105	892	92,336	104	4,03,420	109	4,90,421	113	86,995	...

(a) Includes the Katni-Umaria Branch.

(b) Includes the Bellary-Kistna State Railway.

(c) Includes the Sindia State Railway.

(d) Includes the Sindia and Bhopal Itarsi State Railways.

(e) Includes the Amritsar-Patnadkot and Raipura-Bhatinda State Railways.

(f) Includes the Dhond-Mannad, Khamgaon, Amraoti, and Bhopal-Itarsi State Railways.

(g) Includes the Dhond-Mannad, Khamgaon, and Amraoti Railways.

(h) Includes the Patni Branch.

(i) Return not received.

(j) Total receipts from 1st to 28th April, 1889.

(k) Total receipts from 1st to 27th April, 1889.

S.M.L.A. 30th May, 1889.

M. C. BRACKENBURY, Major, R.E.,

Officiating Deputy Secretary.

D

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SUPPLEMENT TO  
**The Gazette of India.**

No. 23.} CALCUTTA, SATURDAY, JUNE 8, 1889.

**OFFICIAL PAPERS.**

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

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GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
CIVIL WORKS.  
Telegraph.

**ADMINISTRATION REPORT OF THE INDO-EUROPEAN TELEGRAPH DEPARTMENT  
FOR THE YEAR 1887-88.**

No. 142T., dated Simla, the 27th May, 1889.

RESOLUTION—By the Government of India, Public Works Department.

Read—

Letter from the Officiating Director-General of Telegraphs, No. 31E., dated the 8th April, 1889, and its enclosure, the Report for 1887-88.

OBSERVATIONS.—The Capital Account of the Indo-European Telegraph Department was increased by £3,783 during the year 1887-88. This raised the total Capital to £1,128,160.

2. The receipts for the last three years have been—

	£
1885-86 . . . . .	101,928
1886-87 . . . . .	100,386
1887-88 . . . . .	99,234

The first of these years was an exceptional one on account of the Afghan Boundary Commission. The falling off in the year under review is partly attributed to the reduced rates of the Berlin Convention having been in force for the

whole year, whereas they were only in force for 9 months in 1886-87, and partly to depression of trade.

3. The working expenses of the year were £83,530, and the net revenue was £15,704. In the previous year, the department worked at a profit of £13,827 and in 1884-85 at a profit of £30,502.

4. The working expenses of the last three years have been as follows:—

YEAR.	REPAIRS.		Cable Steamer.	Miscellaneous.	Establishment.	Tools and Plant.	TOTAL.
	Ordinary.	Extraordinary.					
	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>	<i>R</i>
1885-86	1,28,024	7,63,693	1,32,686	19,709	5,29,243	46,663	16,20,074
1886-87	1,75,888	778	1,09,944	14,487	5,30,488	33,944	8,65,529
1887-88	1,21,538	...	1,13,660	36,299	5,18,865	44,944	8,35,306

The expenditure of 1885-86 was abnormally large on account of renewal of cables. The decrease in 1887-88 as compared with the previous year would have been greater but for an exceptional item of £2,129 paid for presents made to His Imperial Majesty the Shah of Persia and to some of his Ministers on the occasion of the renewal of the Convention.

5. The traffic transmitted during the year was again smaller both in number of messages and of words than in the previous one. The average length of commercial messages remains practically unaltered, but is slightly greater than in previous years.

6. The new cables in the Persian Gulf which were laid in 1885 and 1886 are in excellent order, but the older India-rubber cables are in a very weak condition. The total interruptions on the route during the year were very slight on the Indo-European lines between Karachi and Teheran, being only some 18 hours in duration, but there were serious and prolonged interruptions on the lines of the Indo-European Company extending from Teheran to England which lasted more than 66 days in the aggregate.

7. The speed of transmission of the three routes between England and Calcutta has been—

	Vid. Teheran.		Vid. Turkey.		Vid. Suez.	
	H.	M.	H.	M.	H.	M.
1887-88	1	11	16	11	2	42
1886-87	1	31	13	23	2	31

The errors in the transmission of messages were 0.23 per cent. of the words transmitted.

8. The Indo-European Telegraph Department was under the charge of Major-General Sir R. M. Smith, K.C.M.G., as Director-in-Chief, during the greater part of the year under review: he retired in February 1888, when the appointment of Director-in-Chief was abolished and the charge of the Department was made over to the Director General of the Telegraphs of India.

9. The report was not received by the Government of India until the 9th April 1889. This date is considerably later than that on which the report of the previous year was received, but the Government is aware that the transfer of the Indo-European Telegraph Department (which formerly had a Director-in-Chief and Assistants of its own) to the Indian Telegraph Department entailed a considerable increase in the ordinary current work and also necessitated a study of the working of a Department, with the details of which the Director-General was quite unacquainted, and the examination of past records, most of which were not available for some time after the transfer. In addition to these facts, further delay was caused by the absence of the Director-General of Telegraphs from



the 20th October 1888 to 21st February 1889, under the orders of the Government of India, on a tour of inspection of the Persian and Indo-European Department lines, an inspection which has, no doubt, rendered his report more useful than it would have been had it been prepared before he had obtained a personal knowledge of the general state of the communications and of the personnel employed. Whilst, therefore, noticing the fact of the late date at which this report has been submitted, the Government of India has no intention of imputing blame on this account to the Director-General.

ORDER.—Ordered, that a copy of this Resolution be forwarded to the Director General of Telegraphs for information and guidance.

Also that copies of the Report and Resolution be forwarded to the Department of Finance and Commerce and the Home Department for information.

Also to the Government of Bombay for information.

Ordered further, that the Report and the Resolution be forwarded to the Secretary of State for the information of Her Majesty's Government, and published in the *Gazette of India*.

R. C. B. PEMBERTON, *Colonel, R.E.*,  
*Secretary to the Government of India.*

# ADMINISTRATION REPORT

## OF THE

# INDO-EUROPEAN TELEGRAPH DEPARTMENT

### FOR

## 1887-88.

### CAPITAL.

The Capital of the Department was but slightly altered during 1887-88, the debits and credits were chiefly in adjustment of suspense items (stores advances, &c.,) and resulted in an increase of £3,783-3-7 to Capital account, which, on the 31st March 1888, stood at £1,128,159-11-9. (Appendix A)

### REVENUE.

2. **B. Revenue Account.**—The Receipts in 1887-88 reached the satisfactory total of £99,234-7-5. The slight decrease of £1,147, compared with the previous year, is attributable partly to a partial falling off in traffic from depression of trade, and partly to the circumstance that the whole of the traffic during 1887-88 was carried at the reduced rates of the Berlin Convention, while in the previous year only nine months' traffic was so carried. In addition to the receipts brought to account the *Patrick Stewart* earned on account of work performed for other Departments £289-6-0.

3. The Expenditure for 1887-88, Appendix B, was £83,530-12-2, showing a decrease compared with the previous year of £3,022, thus arrived at—

	Increase.	Decrease.
	£	£
Repairs . . . . .	...	5,513
Establishment . . . . .	...	1,757
Tools and Plant . . . . .	1,207	...
Presentation Stores . . . . .	2,129	...
Cable Steamer . . . . .	372	...
Chief Direction, London and Constantinople Offices . . . . .	594	...
Advertizing and Agencies—(share of) . . . . .	38	...
* Royalty for Brown-Allan relays . . . . .	...	100
Stores . . . . .	54	...
Stationery . . . . .	...	46
	£4,394	£7,416
	NET DECREASE . £3,022	

The chief item of increase, £2,129, is a special charge. It represents the value of presents made to His Imperial Majesty the Shah of Persia and to some of his ministers on the renewal of the Convention, by which the British Government is allowed to maintain a telegraph line in his dominions.

4. The result of the working for 1887-88 was a balance to credit of £15,704, or £1,876 better than in the previous year, representing a profit of about 1½%.

\* The decrease of £100 Royalty for relays is only apparent, the regular payment is £200 a year, but three half-yearly bills were paid in the preceding year.

**TOTAL INTERRUPTIONS—(APPENDIX C.)**

5. The Indo-European route suffered very severely from total interruption in 1887-88, the aggregate during the year being  $67\frac{1}{4}$  days, compared with  $7\frac{1}{4}$  days in 1886-87 and  $34\frac{1}{4}$  in 1885-86. Of the aggregate of  $67\frac{1}{4}$  days, less than 1 day is chargeable against the Persian and Persian Gulf Sections of the Indian Government, the whole of the remainder having occurred on the section worked by the Indo-European Company. The Company had total interruptions of an ordinary kind, lasting a day or two, in May and December, and an extraordinary interruption which commenced at the end of January, and was not repaired by the end of the official year. The sub-marine wires leased by the Company, one in Reuter's Cable, and one in the German Union Company's Cable, were both broken and remained unrepaired during this almost unprecedented length of time, apparently from defective repairing clauses in the Company's leases.

6. This total interruption would have cost Government the loss of upwards of two months' receipts, had it not been for the Common Purse arrangement, under the terms of which there was a loss of £2,226 on Indian messages, and a "set-off" of £1,963\* on trans-Indian messages, making the net loss £263 only.

7. The Turkish route had an opportunity of replacing to some extent the Indo-European Company's broken section, but its service remained entirely unequal to the task. The Turkish route was totally interrupted 59 days 3 hours 29 minutes in 1887-88, against an aggregate of 108 days 4 hours in the preceding year. For the interruptions *via* Turkey (excluding days of grace), the Department had to pay £32-12-3 to the Eastern Company, and £12-1-3 to the Indo-European Company, under the Common Purse arrangement.

**PARTIAL INTERRUPTIONS NOT STOPPING TRAFFIC.**

8. By a partial interruption is meant an interruption of one or more wires on a circuit which has still an available line or lines left for communication. The partial interruptions in the Persian Gulf amounted to 265 days on the cables and 15 days on the land line. The partial interruptions in Persia amounted to 342 hours, of which 106 hours were due to wilful damage.

**TRAFFIC.**

9. The Regulations and Tariffs of the Berlin Convention remained in force during 1887-88.

10. The paid telegrams and words carried by the Department were—

		1887-88.			1886-87.
		Telegrams.	Words.		
Government	.	2,514	90,238	Telegrams.	Words.
Commercial and Private	.	78,850	1,050,757	2,916	118,552
Press at reduced rates	{	1,079	52,572	86,462	1,124,074
	.	97	73,282	1,355	121,566

There was thus a slight falling off in Government and Commercial telegrams, and a very slight increase in the number of words in cheap press telegrams.

11. The average length of Commercial telegrams was 13.326, or a trifle higher than for several years preceding, when it fluctuated between 12 and 13 words, indicating that the art of codification remained stationary in 1887-88.

\* The interruption percentages being higher than the normal percentages for Far East traffic.

## SPEED OF TRANSMISSION.

12. The average speed of transmission by each of the three routes from England to Calcutta during the year 1887-88, was—

	<i>Via</i> Teheran.	<i>Via</i> Turkey.	<i>Via</i> Suez.
	H. M.	H. M.	H. M.
	1 11	16 11	2 42
In 1886-87 it was . . . . .	1 31	13 23	2 31

From England to Karachi the comparative average speed of transmission was as follows :—

	<i>Via</i> Teheran.	<i>Via</i> Turkey.
	H. M.	H. M.
In 1886-87 . . . . .	1 05	10 45
In 1887-88 . . . . .	0 55	14 54

13. The average speed of homeward messages *via* Teheran was about the same as of outward. In the two months of August and October, the average was only 57 and 56 minutes, respectively, from Calcutta, and 50 and 40 minutes from Karachi. As these are the first instances of monthly averages under the hour since the establishment of telegraphic communication between England and India, the fact appears deserving of notice.

Appendix D shows the monthly mean rate of transmission by the two Sections between Karachi and Teheran. From Karachi to Teheran, 11 minutes 42 seconds, and from Teheran to Karachi 12 minutes 40 seconds. If the two exceptional months of bad working—in December and January—are excluded, the average during the remaining ten months is 9 minutes 7 seconds and 11 minutes 10 seconds, respectively.

Appendix E gives the rate of transmission from the United Kingdom *via* Teheran to Karachi, and compares favourably with that of the previous year.

*Via Turkey.*—The rate continues unsatisfactory, and there were numerous interruptions reported between Fao and Bagdad, and judging from the frequent receipt of messages by the Bashkali line, many stoppages were apparent on the Bagdad-Diarbekir Section.

## CHECK OF ERRORS.

14. Fifty per cent. of the messages passing between Teheran and Karachi were examined for errors, and it was found that 99.770 per cent. of the total number of words were transmitted correctly, as against 99.614 in the previous year.

## RECTIFYING MESSAGES AND PUBLIC COMPLAINTS.

15. There were fewer rectifying messages in 1887-88 than in the previous year, the decrease being evidence of an improvement in accuracy. The number of public complaints in proportion to volume or traffic was about the same. The figures are—

	1887-88.	1886-87.
Rectifying messages . . . . .	1,464	1,709
Public complaints (through London Office) . . . . .	64	65

## TRANSFERRED TRAFFIC.

16. In consequence of the serious interruptions of the Indo-European route (Company's Section, spoken of under paragraph 5) the Indo-European Company transferred 2,960 messages to the Eastern Company in London in 1887-88. The number transferred from the Eastern to the Indo-European route was 4 only.

**SPECIAL WIRES, ADVERTIZING AND AGENCIES.**

17. There was a decrease in the traffic between India and Liverpool, and a slight fluctuation in that with Manchester, by the special wires of the Indo-European route. The figures are—

		Liverpool Messages.	Manchester. Messages.
To	.	2,218	3,853
From	.	1,520	2,044
Total, 1887-88	.	3,738	5,897
„ 1886-87	.	4,698	6,039
„ 1885-86	.	6,202	6,237

18. Notice was given to the Indo-European Telegraph Company that the departmental contribution towards the expense of the special wires, advertising, and agencies in England, would cease from 31st December 1887.

**CREDIT SYSTEM IN ENGLAND.**

19. Eleven firms in Great Britain were added to the credit list of the Indo-European Company in 1887-88, and it is to be noted that the Department shares with the Company, under certain defined conditions, the risk of bad debts on this account.

**GENERAL TRAFFIC ARRANGEMENTS.**

20. An arrangement made in 1886-87, under which, during partial interruptions on the Indo-European route, outward traffic gives way to homeward after 2-30 P.M., Greenwich time, appears to have worked satisfactorily during 1887-88.

**COMMON PURSE.**

21. The reduction of tariff in 1886-87 by about 13 per cent. sensibly affected the total receipts of the Common Purse, as shown in the report for that year and in the subjoined table. The effect of the reduction was also felt throughout 1887-88, but an improvement took place in Far East traffic, raising the total of the Purse from £545,553 in the first-named year to £551,431 in the latter year.

22. The following table exhibits the growth and fluctuation of the Common Purse from the time the Department joined it:—

**Table A.**

YEAR.	First year's actual net receipts and hypothetical increase of 5 per cent. per annum.	Actual net receipts of Common Purse.	Actual increase per cent. per annum on first year's working.	Average increase per cent. per annum.	Fluctuation of each year, compared with preceding year.
	£	£	...	...	...
1878-79	427,180	427,180	...	...	...
1879-80	448,539	480,309	12.437	12.437	...
1880-81	470,966	523,616	10.713	11.25	9.02
1881-82	494,514	515,104	6.437	8.74	1.62
1882-83	519,240	545,043	6.281	7.70	5.81
1883-84	545,202	544,004	4.953	6.73	0.19
1884-85	572,462	556,444	4.504	6.55	2.29
1885-86	601,085	598,813	4.943	5.75	7.61
1886-87	631,139	545,553	3.104	5.13	8.89
1887-88	662,695	551,431	2.877	4.66	1.08

For further particulars see Appendix F.



23. The subjoined Table B subdivides and analyses the receipts shown in Table A.

**Table B.**  
**Common Purse—Analysis of Receipts.**

(1)—INDIAN.

YEAR.	First year's actual net receipts and hypothetical increase of 5 per cent. per annum.	Actual net receipts of Common Purse.	Actual increase per cent. per annum on first year's working.	Average increase per cent. per annum	Fluctuation of each year compared with preceding year.
	£	£			
1878-79 . .	310,010	310,010	...	...	...
1879-80 . .	325,510	337,767	8.953	8.953	...
1880-81 . .	341,786	379,839	10.690	10.15	12.46
1881-82 . .	358,875	360,011	5.110	7.55	5.52
1882-83 . .	376,819	384,007	5.497	6.69	6.66
1883-84 . .	395,660	368,881	8.538	5.59	3.94
1884-85 . .	415,443	360,470	2.545	4.70	2.28
1885-86 . .	436,215	404,063	3.858	4.47	12.09
1886-87 . .	458,025	352,160	1.606	3.83	12.85
1887-88 . .	480,926	338,324	0.975	3.25	3.93

(2)—TRANS-INDIAN.

YEAR.	First year's actual net receipts and hypothetical increase of 5 per cent. per annum.	Actual net receipts of Common Purse.	Actual increase per cent. per annum on first year's working.	Average increase per cent. per annum.	Fluctuation of each year compared with preceding year.
	£	£			
1878-79 . .	117,170	117,170	...	...	...
1879-80 . .	123,029	142,542	21.654	21.654	...
1880-81 . .	129,186	143,777	10.773	14.12	0.87
1881-82 . .	135,639	155,093	9.797	11.84	7.87
1882-83 . .	142,421	161,036	8.274	10.30	3.83
1883-84 . .	149,542	175,123	8.369	9.59	8.75
1884-85 . .	157,019	195,974	8.950	9.38	11.91
1885-86 . .	164,870	194,750	7.528	8.86	0.62
1886-87 . .	173,113	193,393	6.464	8.35	0.70
1887-88 . .	181,768	213,107	6.869	7.94	10.19

### Division of Traffic.

#### THE STANDARD DIVISION OF RECEIPTS.

ON INDIAN TRAFFIC.		ON TRANS-INDIAN TRAFFIC.	
Being		Being	
Via Suez.	Via Indo-European route.	Via Suez.	Via Indo-European route.
60.39%	39.61%	80.53%	19.47%

The percentage of Traffic actually carried have been—

1878-79	.	.	71.31%	28.69%	95.26%	4.74%
1879-80	.	.	67.91%	32.09%	94.10%	4.90%
1880-81	.	.	69.01%	30.99%	92.50%	7.50%
1881-82	.	.	64.63%	35.37%	81.26%	18.74%
1882-83	.	.	48.34%	51.66%	59.26%	40.74%
1883-84	.	.	55.96%	44.04%	83.52%	16.48%
1884-85	.	.	53.02%	46.98%	84.44%	15.56%
1885-86	.	.	52.14%	47.86%	75.91%	25.09%
1886-87	.	.	55.46%	44.54%	85.32%	14.68%
1887-88	.	.	60.93%	39.07%	86.48%	13.52%

24. The following table exhibits the yearly amounts paid into and received from the Common Purse by the Department. The result of the 10 years' working is that the Department has paid in £756,757 and received £754,815. The approximation of these large aggregates is somewhat remarkable, and affords evidence of the care taken in negotiating the intricate terms of the Common Purse arrangement :—

YEAR.	Credited to Purse.	Drawn from Purse.
	£	£
1878-79	42,309	62,264
1879-80	52,488	68,877
1880-81	57,235	76,122
1881-82	67,108	74,528
1882-83	110,728	84,861
1883-84	81,408	76,547
1884-85	85,376	76,610
1885-86	107,317	85,824
1886-87	80,980	75,206
1887-88	71,808	73,976
	756,757	754,815

### Sub-Division of Traffic.

25. Extracting from the Common Purse traffic the percentage carried by the Department, the following figures will show its sub-division between the Teheran and Turkish routes :—

1887-88.

Carried by Department.	Sub-Division.	
Indians and Trans-Indians combined.	Via Teheran.	Via Turkey.
13.02%	12.52%	0.50%

In 1886-87 the figures were :—

14.84%	14.45%	0.39%
--------	--------	-------

### COMMON PURSE ACCOUNTS—Checking of—

26. The usual test check was applied to the traffic accounts of the Eastern Telegraph Company with the usual result ; no error was detected.

27. The Indo-European Company's Common Purse accounts for the month of August were checked throughout. About 25 errors of detail were discovered : —

	Fcs.
Over-credited on Indian traffic . . . . .	8'59½
Short-credit on Trans-Indian traffic . . . . .	79'09

The under-credit will be paid into the Purse.

#### SETTLEMENTS.

28. The settlements with India were effected at the market values of the monthly franc balances; the average rate for the year being 169'18d per rupee. The exchange between francs and sterling was 25'21 per £ for the year.

29. The local collections of the Persian Section were adjusted at the rate 1 franc=26 Shahis, and credit to the Government of India at 255 krans=100 rupees.

30. The settlements with Turkey and the Companies were, as usual, at the rate of 25 francs=£1.

#### PERSIAN GULF TELEGRAPHS.

##### CABLES.

The lengths of the cables at the end of the last two years were—

	1887-88.	1886-87.
Gutta-percha cable . . . . .	1228'651	1228'86
India-rubber cable . . . . .	502'81	501'54
<i>Visa:—</i>		
Gutta-percha—		
Fao to Bushire . . . . .	152'04	152'04
Bushire to Jask . . . . .	519'051	519'55
Jask to Gwador . . . . .	267'65	267'36
Gwador to Manora . . . . .	271'94	271'94
Manora to Karachi . . . . .	17'97	17'97
TOTAL	1228'651	1228'86
India-rubber—		
Bushire to Jask . . . . .	502'81	501'54
	1731'46	1730'40

In addition to the above there are two other cables laid in the Karachi Harbour,—one for the Defence-works, 10'006 knots long, and the other for the Port Department, length 4'15 knots.

#### ELECTRICAL CONDITION OF THE CABLES.—Appendix G..

The insulation of the Fao-Bushire cable remains low owing to the occurrence in November 1886 of a small fault of high resistance which does not interfere with the working of the circuit.

The low insulation of the Bushire-Jask new gutta-percha cable is also due to the presence of a small fault which does not affect the working.

In February 1888, a partial fault\* (not affecting the working) developed in the Bushire-Jask india-rubber cable. Owing to its variable resistance, this fault was not localised until

\* Cut out in May.

after the return of the ship to Karachi.

**FAULTS AND INTERRUPTIONS.—Appendix H.**

During the past year, thirteen faults have been removed. Of these, two faults stood over for repair from the previous year. In addition to the above there were on 1st April four faults still remaining. Of these, one fault in the Gwador-Manora Section and one in the Bushire-Jask india-rubber Section will be cut out on the first opportunity, leaving two faults, one in the Bushire-Jask new gutta-percha cable, and one in the Fao-Bushire Section, which have not yet been localised owing to their high resistance.

One circuit between Karachi and Bushire was available throughout the year, except for seven hours on 22nd February last, during the repair of the Bushire-Jask new gutta-percha cable. The second circuit was available except for 51 days 19 hours, whilst the india-rubber cable between Bushire and Jask was interrupted.

Statement B shows all faults, repairs and renewals to the cables, whereas Statement C shows only the total interruptions in this section affecting communication with Europe, *vis.*—

<i>Via</i> Persia . . . . .	7 hours.
<i>Via</i> Turkey . . . . .	nil

**MAINTENANCE AND REPAIRS.**

The Engineering establishment were absent from Karachi on repairing duty 162 days. Whilst carrying out the various repairs it was found that out of the 107 miles of cable disturbed—

- 60% had to be left on the ground owing to the india-rubber being too weak to bear lifting, and the gutta-percha cable being buried;
- 25% has been stripped for the core;
- 14% was found good enough to be relaid after repairs;
- and 1% consisting of short pieces has been sold.

**EXPENDITURE OF CABLE AND CABLE IN STOCK.—Appendix I.**

106,566 knots of cable have been expended during the past year in making thirteen repairs, giving 8.20 knots as the average per repair. This includes two large repairs or rather renewals of 17.30 and 16.40 knots in the Jask-Gwador cable, and one renewal of 29.77 knots in the india-rubber cable.

The cable in the Manora tanks kept ready for repairs on 1st April 1888 amounted to 73,524 knots.

**SUMMARY OF THE HISTORY OF THE CABLES DURING 1887-88.****Fao-Bushire Cable.**

Since this Section was renewed in July 1886, no total interruption has occurred.

In November 1886, whilst removing a partial fault (due to manufacture), a second defect was found to exist in this Section. Its resistance has, however, remained so high that up to the present the fault has not been localised, but its presence does not in any way interfere with the working.

**Bushire-Jask new gutta-percha cable.**

Two partial earth faults have been cut out during the past year, and one partial fault, which occurred in December 1885, still remains in. Of the two faults cut out, only one occurred during the year under review, the other having developed in March of the previous official year.

During the past year this Section was only interrupted for 15 hours whilst repairing two faults.

During the repair of this Section on 22nd February last, owing to the india-rubber cable being interrupted on the same date, a total interruption to traffic occurred, lasting 7 hours.

#### Jask-Gwadar Cable.

Altogether 6 faults have been cut out of this Section, of which 5 occurred during the past and one during the previous official year. Of these faults, 4 were partial earths (which did not interfere with the working) and 2 were total breaks. One of the partial faults was due to manufacture, the remainder were all caused by the corrosion of guards and fish-bites.

This Section was interrupted for 167 days 14 hours, of which 120 days 4 hours were due to repairs being postponed till after the monsoon.

#### Gwadar-Manora Cable.

Two faults were cut out of this section, both total breaks, due to the corrosion of the guards. A third fault (partial earth, not affecting the working) occurred on 4th January, about  $9\frac{1}{4}$  miles from Manora. This fault has not yet been repaired, though an attempt was made in March last, which owing to the heavy swell had to be abandoned.

This Section was interrupted for 136 days 10 hours; of which 131 days 11 hours were due to the repairs being postponed until after the monsoon.

#### Bushire-Jask Old Gutta-percha Cable.

In November 1885, when this section was abandoned as a working circuit, its length was 507·67 knots—

Up to 31st March 1887 total amount recovered was	121·78 knots.
And the amount left on ground as unrecoverable was	18·89 "
Thus leaving at the beginning of 1887-88 to be recovered	367·00 "
During 1887-88 we have recovered	98·50 "
And left on ground as unrecoverable	39·00 "
Leaving at end of year to be recovered	229·50 "

Allowing, say, 30 per cent. as unrecoverable, we may, I think, expect to recover another 160 miles of cable.

Of the 98·50 knots recovered during the past year, 35 knots were good enough to be relaid after repair. Five knots were kept for sale and the remainder stripped for the core to be remade into cable.

#### Harbour Cables.

Since the renewals last year no faults have occurred in these cables.

A small fault of high resistance was cut out from the lead-covered wire laid last year for the Military Department between Batteries Nos. I and II. The fault looked as if it had been made.

Since the new cable for the Military Department was laid between Baba Island and Battery No. III, the site of No. III Battery has been changed, thus necessitating a corresponding alteration in cable.\*

\* Since done.

#### CABLE HOUSES AND LAND LINES.

All cable-houses and cable land-lines at the various stations are in good order.



The Bushire cable land-lines have been strengthened by the erection of a double line of posts, which have been bolted together as was previously done at Jask.

#### MECHANICAL CONDITION OF THE CABLES.

The Fao-Bushire Section (which was renewed in July 1886) and the Bushire-Jask new gutta-percha cable, which was laid in November 1885, are both in excellent mechanical condition.

The Bushire-Jask india-rubber cable (laid in 1869) is now 19 years old, and is in a very weak condition. During the past year a large renewal of nearly 30 miles, extending eastward from Big Tamb Island, was made in this section, thus cutting out some very bad cable.

The Jask-Gwador Cable is in better condition than the india-rubber cable. Off Charbar, however, when making repairs in December 1887, the cable was found very weak, and a long renewal of over 16 miles was made. Nearer Gwador (off Ras Jeyuni and Ras Ganz), a renewal of upwards of 17 miles was made, but this was due to the cable being buried in that locality. A further renewal of about 12 miles is proposed between this and Gwador.

The Gwador-Manora Section is in about the same condition as the Jask-Gwador Cable. In October 1887, during two repairs, nearly 12 miles of cable were renewed, and another renewal of about 15 miles remains to be made near the same spot.

Although the *Patrick Stewart* made eight voyages during the past official year (same as in 1886-87), only 12 repairs were made as against 23 during the previous year. Whilst the number of faults were 15 and 26 respectively. This in a great measure accounts for the renewals being much less anticipated.

Owing, too, to the ship not having occasion to go beyond Jask as frequently as before, the amount of old gutta-percha cable recovered has been less.

In addition to the above statements, I add two others—(a) Statement F, shewing the total number of faults which have occurred in our cables up to date, and (b) Statement G, showing the amount of cable undisturbed up to date.

#### MEKRAN COAST LINES.

The corrected lengths of these lines at the close of the year under report were as follows:—

	Miles of line.	Miles of wire.
Karachi to Sonmeanee Branch . . . . .	48'75	97'50
Sonmeanee Branch . . . . .	2'00	2'00
Sonmeanee Branch or Ormara . . . . .	165'75	331'50
Ormara to Pusnee Branch . . . . .	88'90	177'00
Pusnee Branch . . . . .	3'25	3'25
Pusnee Branch to Gwador . . . . .	76'50	153'0
Gwador to Charbar . . . . .	116'00	232'0
Charbar to Jask . . . . .	201'20	403'00
TOTAL . . . . .	702'25	1399'25

#### MAINTENANCE AND REPAIRS TO LAND-LINE.

In the Gwador Division 35'5 miles of wire were renewed during the year, the right wire was fitted with 1,094 fluid and 88 Schomberg insulators. At the Shadi Kaur River near Pusnee, new iron compound masts, each 60 feet long, were erected, and near Gwador a short diversion of 2½ miles was made.

In the Gwadar-Jask Division, an iron cylinder, 36 feet long, 4 feet 9 inches diameter (built up in sections), was sunk in the middle of the Rapch River. In this a post was erected and the span wires placed on it. Also a compound mast, 42 feet long, was erected on the west bank of the Sharhno in place of an old telescopic mast.

The right wire for 201½ miles has been thoroughly overhauled, 90 miles of new wire has been inserted; the whole of the original joints, numbering 4,007, have been cut out and replaced by 1,590 of the Britannia form.

The insulation of the left wire throughout to Jask with fluid insulators was completed this year, 96 miles being the length finished.

#### INTERRUPTIONS.

On the Mekran Coast line two interruptions affecting both wires occurred. One was on the 7th October and lasted 15 hours 15 minutes, caused through corrosion of the wires, and the other on the 11th February, when a post was blown over near the Dasht river; this lasted 20 hours 30 minutes. During these interruptions the Karachi-Gwadar Cable was working.

Partial interruptions, not affecting communication, were 18 in number, and aggregated 18 days 21 hours 57 minutes as noted below. They were, with two exceptions, caused through the wire breaking through corrosion; but much of this corroded wire has now been removed:—

	D.	H.	M.
Karachi to Ormara . . . . .	0	16	0
Ormara to Gwadar . . . . .	9	9	40
Gwadar to Charbar . . . . .	3	7	15
Charbar to Jask . . . . .	5	13	2
	18	21	2

#### CABLE FACTORY.

The following is a summary of the work done in the factory during the past year:—

	Knots.
Cable manufactured . . . . .	49'32
Cable repaired and retaped . . . . .	49'89
Cable stripped for the core . . . . .	63'62
Short pieces of cable repaired and kept for sale . . . . .	7'95
MAKING THE TOTAL PASSED THROUGH FACTORY	170'78

#### CABLE STEAMER "PATRICK STEWART."

This ship, although the property of the Telegraph Department, was on the list of the Indian Marine until the 31st May 1887.

She was placed entirely under the orders of the Director-in-Chief of the Indo-European Department on the 1st June 1887, but her officers were not relieved until some months later.

Captain Tindall and Mr. Townsend, her present Commander and First Officer, who arrived in India on the 17th October and 24th November 1887, respectively, were both appointed under covenant by the Secretary of State, and both were selected for their experience in cable ships.

The usual tabular statement shewing the work done by the steamer is forwarded in Appendix J. She made eight trips during the year and steamed about 10,500 miles.

The value of work done for other Departments by the steamer amounted to Rs. 2,892-14-2.

## PERSIAN TELEGRAPHS.

### LINE MAINTENANCE AND REPAIRS.

Of the 3 wires on the Persian line, that used by the Persian Administration is called No. 1, the one principally used for International traffic No. 2, and No. 3 was only used for Departmental messages up to April 1887, since which time it has carried International traffic for only 6 hours a day, consequently more attention has been paid to the maintenance of No. 2 than of No. 3 wire.

No. 2 wire was, during the autumn of 1887, re-insulated with Johnson and Philip's patent fluid insulators for 159½, out of 176, miles of line, near Teheran, which passes over a desert country, the soil of which is impregnated with saline matter. The damp exhalations arising from this saline desert in winter time cause very faulty insulation, where insulators of the original iron-hooded pattern are employed, and the re-insulation with the fluid insulators had a beneficial effect; when the traffic increases to such an extent as to require a second circuit to be kept open at night as well as by day, it will be necessary to re-insulate No. 3 wire as well.

On the rest of the line the work executed was of the ordinary nature of repairs, except that in the 4th Section the direction of the line was changed for a distance of 5 miles in order to avoid a small lake and considerable marsh, which had formed directly under the line rendering its inspection difficult.

### WILFUL DAMAGE.

There were 48 acts of wilful damage committed during the past year, for which a sum of 3,841 krans was received in compensation from the Persian Government. The greater part of the above sum was paid by the local Governors of districts, and only a balance of 1,770 krans had to be referred to Her Britannic Majesty's Legation and recovered through its agency.

This wilful damage, which principally consists of using iron telegraph poles as a means of testing the "penetration" of a gun before purchase, caused an aggregate interruption of No. 1 wire for 120 hours 31 minutes. The table below shows a comparison of the interruptions caused by wilful damage during the last two years:—

	1 Wire.	2 Wires.	3 Wires.
1886-87 . . . . .	166'15	1'45	<i>Nil.</i>
1887-88 . . . . .	120'31	<i>Nil.</i>	<i>Nil.</i>
DECREASE . . . . .	<u>45'44</u>	<u>1'45</u>	<u><i>Nil.</i></u>

### INTERRUPTIONS.

The line stood well throughout the winter of 1887-88. A single case of interruption, however, did occur in the neighbourhood of Shiraz, and was due to an exceptionally heavy snowfall on the 15th January, which caused a cessation of communication for 8 hours and 58 minutes.

The above was the only total interruption that occurred during the past financial year.

Of all interruptions, total and partial, the following table shows an improvement on 1886-87:—

In	1 Wire.	2 Wires.	3 Wires.
1886-87 . . . . .	636'56	129'1	59'23
1887-88 . . . . .	342'32	50'32	8'55
DECREASE . . . . .	<u>294'24</u>	<u>78'29</u>	<u>50'28</u>

## Working parties caused interruptions thus—

In	1 Wire.	2 Wires.	3 Wires.
1886-87 . . . . .	21'4	'59	<i>Nil.</i>
1887-88 . . . . .	2'58	<i>Nil.</i>	<i>Nil.</i>
DECREASE . . . . .	18'6	'59	<i>Nil.</i>

This decrease is due to the fact that the only alteration of the direction of the line undertaken during the past year was where it crossed open country, whereas the change made in 1886-87 was from one side to another of the Pulvar river at its passage through a long and difficult gorge.

## Birds caused interruptions thus—

In	1 Wire.	2 Wires.	3 Wires.
1886-87 . . . . .	92'45	<i>Nil.</i>	<i>Nil.</i>
1887-88 . . . . .	5'15	<i>Nil.</i>	<i>Nil.</i>
DECREASE . . . . .	87'30	<i>Nil.</i>	<i>Nil.</i>

It was in a great measure to avoid the contacts caused by birds that the direction of the line was changed near "Cyrus's tomb" as mentioned above. Since the change has been made no further trouble has been experienced in respect to such contacts.

## Camels caused interruption, thus—

In	1 Wire.	2 Wires.	3 Wires.
1886-87 . . . . .	3'20	10'35	<i>Nil.</i>
1887-88 . . . . .	24'39	<i>Nil.</i>	<i>Nil.</i>
INCREASE . . . . .	21'10	10'35	<i>Nil.</i>

The interruptions due to wilful damage have already been specified.

## TRAFFIC.

Attached are returns—

I.—Showing the average accuracy.—Appendix I.

II.—Showing the average speed with which messages were transmitted.—Appendix J.

The improvement shown by both returns is remarkable; that as regards speed is mostly due to the use of the second circuit.

The total number of words transmitted over this section during the financial year 1887-88, were 1,184,799, or 196,082 less than the average for the previous three years—a decrease to be accounted for by the fact that the Indo-European Company's lines were interrupted during 63 days in 1887-88.

## MESHED LINE.

The line from Teheran to Meshed which, although it forms part of the Persian system of telegraphs, has been maintained and partly worked by the British Government since the 14th December 1885.

This line was interrupted for 1,611 hours 15 minutes during the year, the greater number of interruptions being caused by camels, but one interruption of 213½ hours in August was purposely caused by the followers of Sirdar Ayub Khan when he made his escape from Teheran.

In addition to the expense incurred on account of this line by the British Government, the Persian Minister for Telegraphs gave 6,750 krans for new poles, besides a supply of wire and insulators.

In connection with this line there are now lines open from Meshed to the East as far as Sarakhs and to the West *via* Kuchan to Bujnurd; and the Persians are also constructing one *via* Kelat-i-Nadari to Deraghez.

### PERSIAN AUTHORITIES.

Our relations with the Persian authorities and inhabitants everywhere are of a very friendly nature. An unfortunate event happened at Shiraz on the 20th of December 1887, but this was not so much a demonstration against the English as a desire on the part of the inhabitants to discredit the Governor who then misruled the province.

On the occasion here referred to, Mr. Smith and his wife, together with a Dutch merchant, agent for Messrs. Hotz and Company, accompanied by servants carrying lanterns, were returning from the telegraph quarters outside Shiraz to the gates of the town, when a volley was fired by some people on the reverse side of the wall that bounds the road; none of the shots took effect, but on Mr. Smith rushing forward to try and capture one of his assailants, his wife received a charge of slugs from a pistol held by a man standing only one pace from her, and the merchant was cut by a sword on the left hand. Four of the slugs fired from the pistol took effect, and Mrs. Smith was consequently for some time in a precarious state of health. The Governor and many of the principal inhabitants expressed the warmest sympathy, and a payment of 5,000 krans was made in compensation; but notwithstanding the efforts of the British Minister, the perpetrators of this outrage have never been brought to justice.

The new Governor H. R. H. the Itesham-ud-Dowleh, cousin of H. I. M. the Shah, who was appointed to the province of Fars on the 21st of March 1888, is determined to put a stop to many malpractices that had gained head under his predecessor. Wilful damage and other annoyances of a like nature may be expected to decrease under his firm rule.

His Excellency the Mukhber-ul-Dowleh, Minister of Telegraphs, by his tact and hearty co-operation, has enabled the species of dual control of the Meshed line to be worked without friction, and with advantage both to the Persian and British Governments. The services His Excellency has rendered to the Indo-European Government Telegraph Department are well known, and his desire to do the best in his power to facilitate the working of the Persian Section proves to be as great now as it ever has been.

### ESTABLISHMENT.

Major-General Sir R. M. Smith, K.C.M.G., the last Director-in-Chief of the Indo-European Telegraph Department, having retired on the 15th February 1888, Her Majesty's Government decided that no successor should be appointed to him, but from that date placed the administration of the system under Sir A. J. Leppoc Cappel, the Director General of the Indian Telegraphs, in addition to his other duties. Throughout the year Mr. B. Finch, as Director, was in charge of the Persian Gulf Section, and Major H. Wells, R.E., officiated as Director of Telegraphs in Persia—a post which he has held since Major-General (then Colonel) Sir R. M. Smith proceeded on furlough in May 1885.

Sir A. J. Leppoc Cappel having taken furlough on the 9th March, or 23 days after assuming charge of the Indo-European Department, the charge of it has since been vested in me.

H. A. MALLOCK, *Colonel, Bengal Staff Corps,*  
*Officiating Director General of Telegraphs.*

CALCUTTA.  
16th March 1889.



## APPENDIX A.

*Summary of Expenditure on Capital Account to 31st March 1868.*

	£	s.	d.
Capital Expenditure on 31st March 1887	1,124,376	8	2
Capital Expenditure from 1st April 1887 to 31st March 1888 :—			
Persian Gulf Section—			
Works . . . . .			
" (Expenditure of Public Works Department) . . . . .			
Tools and Plant . . . . .			
Loss by Exchange on English transactions . . . . .			
SUSPENSE HEADS—			
Stores . . . . .			
Advances . . . . .			
Sales . . . . .			
Balance debited Capital . . . . .			
Persian Section—			
SUSPENSE HEADS—			
Advances . . . . .			
Balance credited Capital . . . . .			
Deduct—			
Receipts in England—			
Sale of old cable-core returned to England . . . . .			
	3,945	16	7
	1,128,322	4	9
	162	13	0
	£1,128,159	11	9

LONDON OFFICE,  
THE 24th AUGUST 1889.

**A. BRASHER,**  
*Director of Traffic.*

**APPENDIX B.**  
*Revenue Account for the year ending 31st March 1888.*

To Traffic Earnings, from 1st April 1887 to 31st March 1888—										£			s.			d.		
Persian Gulf Section.			Persian Section.			Total.												
R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	
Net Earnings on Indian, Trans-Indian and Local Traffic, including the profit on mean rates <i>vis à</i> Turkey . . . . .																		
8,51,658	0 7	1,06,172	11 1	9,57,830	11 8													
£																		
85,165	16 1	10,617	5 5	95,783	1 6													
Common Purse :—																		
£	s. d.	£	s. d.	£	s. d.													
64,892	7 4	9,083	12 6	73,975	19 10													
62,990	13 8	8,817	8 7	71,808	2 3													
1,901	13 8	266	3 11	2,167	17 7													
87,067	9 9	10,883	9 4	97,950	19 1													
BALANCE DUE FROM COMMON PURSE																		
NET TRAFFIC RECEIPTS . . . . .																		
97,950 19 1																		
To Miscellaneous Receipts—																		
Persian Gulf Section.			Persian Section.			Total.												
R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	
4,232	14 5	6,189	2 9	10,422	1 2													
.....		2,160	6 8	2,160	6 8													
4,232	14 5	8,349	9 5	12,582	7 10													
TOTAL																		
1,253 5 0																		
To Profit and Loss—																		
Balance of Unsettled Traffic Accounts for 1884-85, written off to Profit																		
Deduct—Loss by Exchange on remittance from Constantinople of																		
Ottoman balance for 1886-87 . . . . .																		
25 3 4																		
By Balance . . . . .																		
£99,234 7 5																		

By Expenditure from 1st April 1887 to 31st March 1888—										£			s.			d.		
In India.			In England.			Total.												
R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	R	a. p.	
Persian Gulf Section—																		
Repairs . . . . .	94,261	12 2	.....	8 8	94,261	12 2												
Establishment . . . . .	2,75,276	12 7	12,655		2,87,932	5 3												
Tools and Plant . . . . .	27,474	11 0	.....		27,474	11 0												
Cable Steamer . . . . .	1,13,660	4 9	.....		1,13,660	4 9												
Share of Chief Direction London and Constantinople . . . . .	.....		32,125	5 2	32,125	5 2												
Offices Share Advertising and Agency charges for 1886 . . . . .	.....		8,674	8 11	8,674	8 11												
Royalty for use of Brown-Allan Patent relay . . . . .	.....		2,000	0 0	2,000	0 0												
Deduct—Value of stationary received without charge																		
5,10,673	8 6	55,455	6 9	5,66,128	15 3													
686	13 6	.....		686	13 6													
5,09,986	11 0	55,455	6 9	5,65,442	1 9													
TOTAL PERSIAN GULF SECTION																		
Persian Section—																		
Repairs . . . . .	27,276	7 1	.....		27,276	7 1												
Establishment . . . . .	1,78,175	6 7	5,133	2 8	1,83,308	9 3												
Tools and Plant . . . . .	3,397	6 1	15,133	9 4	18,530	15 5												
Stores for presentation . . . . .	.....		21,287	2 8	21,287	2 8												
Share of Chief Direction London Office . . . . .	.....		14,349	6 10	14,349	6 10												
Share of Advertising and Agency charges for 1886 . . . . .	.....		4,337	4 5	4,337	4 5												
Advances . . . . .	.....		1,150	0 0	1,150	0 0												
Deduct—Value of Stationary received without charge																		
2,08,849	3 9	61,390	9 11	2,70,239	13 8													
375	14 4	.....		375	14 4													
2,08,473	5 5	61,390	9 11	2,69,863	15 4													
TOTAL PERSIAN SECTION																		
TOTAL INDO-EUROPEAN TELEGRAPH DEPARTMENT																		
7,18,460	0 5	1,16,846	0 8	8,35,306	1 1													
By Balance . . . . .																		
£99,234 7 5																		

To Profit and Loss—																		
Balance of Unsettled Traffic Accounts for 1884-85, written off to Profit																		
Deduct—Loss by Exchange on remittance from Constantinople of																		
Ottoman balance for 1886-87 . . . . .																		
25 3 4																		
By Balance . . . . .																		
£99,234 7 5																		

## APPENDIX C.

*List of Total Interruptions to through-traffic on the Constantinople-Karachi Sections of the Turkish route during the year 1887-88.*

*List of Total Interruptions to through-traffic on the Teheran route in 1887-88.*

MONTH.	Constantinople-Fao Section.		Fao-Karachi Section.		Deduct for simultaneous interruptions on two or more sections of Turkish route.		Turkish route totally interrupted.		MONTH.		Indo-European Company's Section.		INDO-EUROPEAN DEPARTMENTAL LINES.		Deduct for simultaneous interruptions on two or more sections of Turkish route.		Indo-European route, as a whole and Teheran totally interrupted.		REMARKS.
	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.			D.	H. M.	D.	H. M.	D.	H. M.			
April 1887	16	0 17					16	0 17	April 1887		...	...					...	...	The German Union Cable (via which the Indo-European Company had one wire) broke down on 1st February and remained interrupted at the end of the year.
May	3	13 58					3	13 58	May		1	2 46					...	2 46	
June	1	11 0					1	11 0	"		...	...					...	...	
July	4	15 11					4	15 11	"		0	0 12					0	0 12	
August	0	14 24					0	14 24	August		0	0 30					0	0 30	
September	1	6 06					1	6 06	"		...	...					...	...	
October	0	23 45					0	23 45	September		...	...					...	...	
November	2	15 53					2	15 53	"		0	0 45					0	0 45	
December	13	18 0					13	18 0	October		...	...					...	...	
January 1888	4	1 37					4	1 37	November		3	10 21					3	10 21	
February	6	9 52					6	9 52	December		29	0 0					29	0 0	
March	3	8 27					3	8 27	January 1888		31	0 0					31	0 0	
TOTAL	58	18 30	0	8 59	...	...	59	3 29	TOTAL		66	11 59	0	9 0	...	...	67	5 58	

*Comparison with preceding two years.*

	D.		H. M.		D.		H. M.		D.		H. M.		D.		H. M.		D.		H. M.	
	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.	D.	H. M.
1885-86	10	11 58	117	15 30	3	8 22	128	3 28	8	530	15	17 48	10	9 0	...	...	34	8 18	...	...
1886-87	13	18 10	94	10 37	...	...	108	4 47	4	17 11	2	11 23	...	...	...	...	7	4 34	...	...

• Included also in Fao-Karachi Section.

**APPENDIX D.**  
**INDO-EUROPEAN TELEGRAPH DEPARTMENT, PERSIAN GULF SECTION.**

*Showing the average daily mean rate of transmission of Messages over the Persian Gulf and Persian Sections to and from Karachi and Teheran, during the year 1887-88.*

Month.	Karachi to Teheran.		Teheran to Karachi.		REMARKS.
	Mins.	Secs.	Mins.	Secs.	
April . . . . .	9	24	8	53	
May . . . . .	9	6	9	16	
June . . . . .	9	19	12	7	
July . . . . .	11	34	17*	10	• Gwadar-Jask Section interrupted, working through Land-line.
August . . . . .	11	05	13*	11	
September . . . . .	8	11	14*	03	
October . . . . .	8	55	13*	14	
November . . . . .	10	14	11	55	
December . . . . .	21	40	25	35	Persian lines working badly through severe weather.
January . . . . .	27	23	14	50	Working one Gulf Section, 8th to 27th, and Persian lines working badly.
February . . . . .	7	35	6	25	
March . . . . .	5	59	5	26	
Average Monthly Mean Rate of transmission per message during the year . . . . .	11	42	12	40	

KARACHI,  
The 15th June 1889.

B. FFINCH,  
Director, Persian Gulf Section.

A. HERBAGE,  
Traffic Manager, Persian Gulf Telegraph.

## APPENDIX E.

## INDO-EUROPEAN TELEGRAPH DEPARTMENT, PERSIAN GULF SECTION.

Showing the maximum, minimum and mean rate of transmission from the United Kingdom to Karachi during the year 1887-88 compared with that of the previous year.

Month.	1887-88.										1886-87.										REMARKS.	
	UNITED KINGDOM TO KARACHI.										UNITED KINGDOM TO KARACHI.											
	Via Teheran.					Via Turkey.					Via Teheran.					Via Turkey.						
	Maximum.	H. M.	Minimum.	H. M.	Mean.	Maximum.	H. M.	Minimum.	H. M.	Mean.	Maximum.	H. M.	Minimum.	H. M.	Mean.	Maximum.	H. M.	Minimum.	H. M.	Mean.		
April	2 25	0 6	0 36	0 36	6 43	11 15	3 33	3 0	3 33	6 43	11 15	3 33	3 0	3 33	6 43	10 0	2 45	5 59	5 59	Teheran route.	Fao-Bushire cable interrupted 8th to 30th.	
May	3 24	0 5	0 45	0 45	16 34	45 24	4 06	4 06	4 06	16 34	45 24	4 06	4 06	4 06	16 34	...	...	...	...	...	Fao-Bushire cable interrupted 1st to 31st.	
June	3 10	0 5	0 45	0 45	12 45	30 45	1 27	1 27	1 27	12 45	30 45	1 27	1 27	1 27	12 45	23 26	4 47	13 11	13 11	...	Fao-Bushire cable interrupted 1st to 8th, 18th to 21st, 26th to 30th.	
July	2 41	0 5	0 54	0 54	7 39	15 23	3 0	3 0	3 0	7 39	15 23	3 0	3 0	3 0	7 39	...	...	...	...	...	Fao-Bushire cable interrupted 1st to 27th.	
August	3 09	0 4	0 50	0 50	10 01	17 03	2 32	2 32	2 32	10 01	17 03	2 32	2 32	2 32	10 01	16 28	3 6	7 24	7 24	...	Pressure of traffic from partial interruption Malta-Gibraltar line, Suez route.	
September	3 10	0 9	0 55	0 55	12 06	28 57	3 01	3 01	3 01	12 06	28 57	3 01	3 01	3 01	12 06	23 19	3 49	8 53	8 53	...	5th to 31st one cable interrupted, Persian Gulf.	
October	3 24	0 8	0 40	0 40	18 01	32 26	1 57	1 57	1 57	18 01	32 26	1 57	1 57	1 57	18 01	17 40	4 40	10 27	10 27	...	One cable interrupted Persian Gulf 1st to 2nd, 7th to 10th. Extra messages diverted from the Suez route.	
November	3 31	0 6	0 57	0 57	12 13	44 24	3 58	3 58	3 58	12 13	44 24	3 58	3 58	3 58	12 13	67 51	3 44	14 54	14 54	...	One cable interrupted, Persian Gulf, 7th to 12th.	
December	7 31	0 7	1 19	1 19	22 17	51 03	7 35	7 35	7 35	22 17	51 03	7 35	7 35	7 35	22 17	28 54	6 10	12 46	12 46	...	One cable interrupted Persian Gulf 23rd to 31st, also interruptions Indo-Company lines in England. Messages sent London and Lowestoft by Railway.	
January	5 39	0 7	1 04	1 04	37 32	132 34	4 20	4 20	4 20	37 32	132 34	4 20	4 20	4 20	37 32	62 45	4 14	15 26	15 26	...	Interruptions Persian Section and Company's line and one cable Persian Gulf, 24th to 31st.	
February	26 49	0 14	1 29	1 29	20 43	68 09	4 26	4 26	4 26	20 43	68 09	4 26	4 26	4 26	20 43	44 05	3 30	9 18	9 18	...	One cable interrupted Persian Gulf, 1st to 28th.	
March	...	...	...	...	14 23	40 40	4 21	4 21	4 21	14 23	40 40	4 21	4 21	4 21	14 23	19 53	3 06	9 14	9 14	...	One cable interrupted 1st to 24th, 25th to 29th and on Indo-Company's Odessa line.	
Monthly average during the year	4 43	0 06	0 55	0 55	15 54	43 10	3 41	3 41	3 41	15 54	43 10	3 41	3 41	3 41	15 54	31 26	3 59	10 45	10 45	...	...	
																...	...	...	...	...	...	

KARACHI,  
The 15th June 1888.

(a) Messages of 31st January passing 1st February.  
B. FFINCH,  
Director, Persian Gulf Section.

A. HERBAGE,  
Traffic Manager, Persian Gulf Telegraph.



APPENDIX F.

COMMON PURSE.

TABLE A.—Division of Receipts.

Year.	INDIAN MESSAGES.										TRANS-INDIAN MESSAGES.										TOTAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Number of words.	Total net value.	PROPORTIONS FOR						Number of words.	Total net value.	PROPORTIONS FOR						Number of words.	Total net value.	PROPORTIONS FOR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			Eastern Company.	Indo-European Company.	Indo-European Department.	Indo-European Department.	Indo-European Department.	Eastern Company.			Indo-European Company.	Indo-European Department.	Indo-European Department.	Indo-European Department.	Eastern Company.	Indo-European Company.			Indo-European Department.	Indo-European Department.	Indo-European Department.	Eastern Company.	Indo-European Company.	Indo-European Department.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.</

TABLE B.—Division of Traffic as actually carried.

Year.	INDIAN MESSAGES.										TRANS-INDIAN MESSAGES.										TOTALS.															
	Total net value.					PROPORTIONS CREDITED BY					Total net value.					PROPORTIONS CREDITED BY					Total net value.					PROPORTIONS CREDITED BY										
						Eastern Company.	Indo-European Company.	Indo-European Department.	Eastern Company.	Indo-European Company.						Indo-European Department.	Eastern Company.	Indo-European Company.	Indo-European Department.																	
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.							
1878-79	310,009	16	2	221,062	0	7	48,921	2	0	40,026	13	7	117,170	15	7	111,616	0	7	3,316	9	4	2,238	5	8	427,180	11	9	332,678	1	2	52,237	11	4	42,264	19	3
1879-80	337,767	6	8	226,381	19	1	59,437	16	3	48,947	11	4	142,541	14	11	134,124	5	8	4,877	2	3	3,540	7	11	480,309	1	7	363,506	4	9	64,314	18	6	52,487	18	4
1880-81	370,839	8	8	262,115	19	4	64,967	10	10	52,755	18	6	143,776	13	1	132,990	5	3	6,307	8	7	4,478	19	3	523,016	1	9	395,106	4	9	71,274	19	5	57,234	17	9
1881-82	360,011	1	9	232,682	0	4	71,429	14	11	55,899	6	6	155,093	0	8	126,038	4	1	17,846	9	11	11,208	6	8	515,104	2	5	358,720	4	5	89,276	4	10	67,107	13	2
1882-83	384,007	5	9	185,637	10	3	113,201	11	7	85,168	3	11	161,035	16	7	95,226	5	8	40,049	13	6	25,559	17	5	545,043	2	4	444,003	15	11	153,251	5	1	110,728	1	4
1883-84	368,880	9	2	206,426	16	6	92,281	15	4	70,171	17	4	175,123	6	7	146,277	15	11	17,609	12	10	11,235	17	10	544,003	15	9	352,704	12	5	109,891	8	2	81,407	15	2
1884-85	360,469	16	5	191,129	15	6	95,655	5	6	73,684	15	5	195,974	2	6	165,473	1	3	18,809	7	5	11,691	13	10	556,443	18	11	356,602	16	9	114,464	12	11	85,370	9	3
1885-86	404,063	1	4	210,664	5	2	104,907	9	3	88,491	6	11	194,749	16	11	147,835	3	0	28,089	1	10	18,825	12	1	598,812	18	3	358,499	8	2	132,996	11	1	107,316	19	0
1886-87	352,159	11	4	195,305	5	6	87,058	6	11	69,795	18	11	193,393	8	5	164,991	6	11	17,217	18	3	11,184	3	3	548,552	19	9	360,296	12	5	104,276	5	2	80,980	2	2
1887-88	338,324	5	6	206,150	16	10	71,802	8	2	60,371	0	6	213,106	12	4	184,299	10	1	17,370	0	6	11,437	1	9	551,430	17	10	390,450	6	11	89,172	8	8	71,808	2	3

LONDON OFFICE,  
The 24th August 1888.

A. BRASHER,  
Director of Traffic.

**APPENDIX G.**  
*Statement showing Insulation of the Persian Gulf Cables during March 1888.*

SECTIONS.	Length in knots.	INSULATION IN MEGOHMS PER KNOT.			REMARKS.
		Original.	March 1887.	March 1888.	
Fao-Bushire . . . . .	152'04	620	Faulty	Faulty	Fault developed in November 1886 and not yet localized owing to its high resistance.
Bushire-Jask new, Gutta-Percha . . . . .	519'051	1,285	"	220	Low insulation due to fault which developed in December 1885 and not yet localized owing to its high resistance.
Ditto India-rubber . . . . .	502'81	2,000	629	Faulty	Fault developed in February 1888, but not yet localized owing to its variable resistance.
Jask-Gwadar . . . . .	267'65	40	Faulty	92	
Gwadar-Manora . . . . .	271'94	275	88	Faulty	Fault developed in January 1888 Repair attempted in March 1888, but unsuccessful owing to heavy swell.
Harbour Cable, No. 1 . . . . .	5'99	24	2	2	
Ditto No. 2 . . . . .	5'99	4	1	1	
Ditto No. 3 . . . . .	5'99	75	1	1	
Harbour Defence, No. 4 . . . . .	10'006	...	...	4	

NOTE.—The working is not affected by the presence of any of the above faults.

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*Director, Persian Gulf Section.*

**G. W. SEALY,**

*Acting Engineer and Electrician, Persian Gulf Section.*

**APPENDIX H.**  
*Statement showing the Faults, Repairs, and Renewals on the Persian Gulf Cables during the Official year 1887-88.*

No.	REPAIR.		FAULT.		DURATION OF INTERRUPTION, 1887-88.		TOTAL DURATION OF INTERRUPTION.		Section.	Locality of Fault.		Cause of Fault.	REMARKS.
	No.	Date.	No.	Date.	Days.	Hours.	Days.	Hours.		Miles.	From		
1	April 6th, 1887		1	March 24th, 1887	...	...	...	8	Bushire-Jask Gutta-percha	303'25	Bushire	Manufacture. Hole in percha.	Partial earth
2	" 9th "		2	" 10th "	...	...	30	12	Jaska-Gwadar	70'80	Jask	Corrosion of guards	Ditto
3	May 23rd "		3	April 8th "	...	...	...	6	Ditto	125'50	"	Manufacture (experimental cable) overheating of percha.	Ditto
4	July 25 "		4	July 10th "	...	...	15	4	Bushire-Jask India-rubber.	175'10	"	Corrosion of guards	Broken conductor.
5	October 5th "		5	June 13th "	...	...	131	11	Gwadar-Manora	probably 53'48 not received.	Gwadar	Probably do.	Total break. } These repairs were attempted in June, but owing to heavy swamped, are postponed.
6	" 12th "		6	" 12th "	...	...	120	4	Jask-Gwadar	about 44'50 not recovered.	"	Ditto	Ditto
7	" 23rd "		7	October 18th "	...	...	4	23	Gwadar-Manora	43'00	"	Perishing of guards	Ditto
8	December 15th "		8	December 3rd "	...	...	12	14	Jask-Gwadar	about 47'67 not recovered	Jask	Probably do.	Broken Conductor.
9	" 20th "		9-10	" 9th "	...	...	3	2	Ditto	about 161'0 and about 168'0 not recovered.	"	fish bites	Two faults both partial, earth not affecting the working.
10	January 27th, 1888		11	January 7th 1888	...	...	20	9	Bushire-Jask India-rubber.	about 108'30 not recovered.	Bushire	corrosion of guards	Broken conductor.
11	February 22nd "		12	" 23rd "	...	...	...	7	Ditto Gutta-percha	186'33	"	Manufacture. Hole in percha.	Partial earth, not affecting the working. Until repair was in progress.
12	March 1st "		13	February 14th "	...	...	16	6	Ditto India-rubber	about 144'00 not recovered.	Jask	Probably corrosion of guards.	Broken conductor.
			14	January 4th "	...	...	...	...	Gwadar-Manora	.....	.....	.....	Partial earth } Not affecting the working.
			15	February 6th "	...	...	...	...	Bushire-Jask India-rubber	.....	.....	.....	Ditto

**B. FFINCH,**  
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**APPENDIX I.**  
**Statement showing Expenditure of Cable during 1887-88 and Quantity remaining on hand on 31st March 1888.**

DESCRIPTION.	Balance 31st March 1887.	RECEIVED SINCE.			TOTAL.		Balance in hand 31st March 1888.	REMARKS.
		Manufactured at Manora.	Received from England.	Picked up at Sea, fit for relaying.	Receipts, 1887-88.	Expenditure, 1887-88.		
Gutta-percha—								
Main Cable, 1st class . . . . .	16,846	.....	1,.....	41,680	58,526	46,686	11,840	
Shore end . . . . .	1,829	.....	.....	3,600	4,829	.....	4,829	
Thin Cable, thin core . . . . .	9,410	.....	.....	1,490	10,900	2,300	8,600	
Ditto thick, 2nd class core . . . . .	0,562	1,000	.....	.....	1,562	.....	1,562*	* For Harbour Cables.
Ditto thick, 1st ditto . . . . .	49,250	48,320	.....	.....	97,570	57,370	40,200	
India-rubber—								
Main Cable . . . . .	1,055	.....	.....	2,288	3,343	.....	3,343	
Shore end . . . . .	1,930	.....	.....	1,430	3,360	0,210	3,150	

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*Director, Persian Gulf Section.*

**G. W. SEALY,**  
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## APPENDIX I.

Statement of work done by the Telegraph Cable Steamer "Patrick Stewart" during the year 1887-88.

DATE.		PARTICULARS.
From	To	
1887. April 1	1887. April 12	Employed picking up old cable off Bushire, repaired fault in new gutta-percha south of Furar Island, and another in Gwador-Jask Section and returned to Karachi, calling at Jask, Gwador, and Ormara.
" 13	May 5	At moorings in Karachi harbour discharging cable, coaling, preparing ship for sea, receiving stores, &c.
May 5	" 15	Left Karachi for Persian Gulf with Director-in-Chief. Director, reliefs and stores for stations, picked up old gutta-percha and arrived at Fao.
" 16	" 27	Left Fao, picked up old gutta-percha cable, repaired fault in Gwador-Jask Section, and returned to Karachi, calling at Charbar, Gwador, and Ormara.
" 28	June 15	At moorings in Karachi harbour.
June 16	" 26	Left Karachi to repair two faults in the cable in Karachi-Gwador and Gwador-Jask Sections, but owing to heavy south-west monsoon-sea, the faults after several attempts could not be repaired, returned to Karachi.
" 27	July 14	At moorings in Karachi harbour.
July 15	" 31	Left Karachi for Persian Gulf with stores and passengers, called at Charbar and Jask, repaired a fault in the India-rubber cable, Bushire-Jask Section, about 176½ miles from Jask, and returned to Karachi, calling at Jask-Gwador and Ormara.
Aug. 1	Aug. 14	At moorings in Karachi harbour.
" 15	" 18	Left for Bombay, arriving there on the 18th.
" 19	Sept. 4	Hauled into dock, undergoing repairs to engines, cleaning vessel's bottom, &c.
Sept. 5	" 15	Hauled out of dock and laying at moorings in Bombay harbour, completing repairs, &c., which proved satisfactory.
" 16	" 19	Left for Karachi with a steam-launch for the Karachi harbour defences in tow, arriving 19th.
" 20	Oct. 1	At moorings in Karachi harbour.
Oct. 2	" 25	Left Karachi, repaired the two faults which were left off unrepaired in Karachi-Gwador and Gwador-Jask Sections; also picked up some old cable about 13 miles from Jask, and returned to Jask 18th; received intimation of another fault in Karachi-Gwador Section, after repairing it returned to Karachi.
" 26	Dec. 7	At moorings in Karachi harbour.
Dec. 8	" 24	Left Karachi for cable work, called at Ormara-Gwador and Gwether, to land line stores, and Charbar, repaired two faults in gutta-percha cable, Gwador-Jask Section, and returned to Karachi, calling at Gwador and Ormara.
" 25	1888. Jan. 9	At moorings in Karachi harbour.
1888. Jan. 10	Mar. 7	Left for Gulf, with Director on board, on annual inspection of stations with reliefs and stores, repaired two faults in India-rubber cable and one in gutta-percha, picked up some old cable and returned to Karachi.
Mar. 8	" 21	At moorings in Karachi harbour.
" 22	" 26	Left Karachi to repair a fault in the Karachi-Gwador Section off Manora, about 9 miles, but unable to carry out the repairs owing to the heavy sea and swell; returned to Karachi.
" 27	" 31	At moorings in Karachi harbour.

B. FFINCH,  
Director, Persian Gulf Section.



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Memorandum on the Snowfall in the Mountain Districts bordering Northern India, and on the Abnormal Features of the Weather in India during the preceding months.**

The following preliminary note and forecast will be followed in the early part of June by a final forecast drawn up by the Meteorological Reporter, based on the information of snowfall on the Himalayas during the months of April and May and the meteorological observations for the month of May.

The premises hitherto accepted are that the strength and extent of the south-west monsoon current in India appear to depend mainly on three factors:

*1st.*—The amount of snowfall and the period of its occurrence in the northern mountain districts of India.

*2nd.*—The local peculiarities of the weather in India itself immediately antecedent to the rains, and mainly impressed upon it during the preceding hot weather. These are chiefly measured by the local variations of pressure from the mean.

*3rd.*—Local peculiarities in the Bay of Bengal and Arabian Sea, over which the monsoon current passes before it reaches India.

The first factor appears to be mainly influential in determining the northward limits of the monsoon rains; heavy and prolonged snowfall in the Himalayas either delaying or preventing the extension of the monsoon current over Upper India during the rainy season.

The second factor appears to determine those large local district and provincial variations of rainfall during the monsoon which are evidently due to local conditions and peculiarities, and not to general causes, such as snowfall over the whole Himalayan region, or as variations in the number of sunspots.

The third and last factor is of equal importance with the preceding, but it is that on which information is least in amount and is longest in being received.

In the present note it is only possible to state the snowfall conditions in the mountain districts of Northern India and the abnormal features (chiefly of pressure) in India itself.

**Summary of Snowfall information.**—Over the Afghan Highlands the snowfall seems to have been on the whole decidedly less than the normal. The snowfall on the Spinghar was about the same as that of last year, but it was followed by heavy rain, which melted much of it and it is probable there was very little snow on these ranges by the end of February. There appears to have been little or no snow in March. There was also a marked absence of cold winds, which may probably be accepted as an indication of deficiency of snow.

On the hills to the north of the Punjab there is a good deal of difference in the amount of snow received in different districts. In Ladak and Kashmir there has been extremely little snow. In Lahoul, Plach, and Kulu, on the contrary, there was an abnormally early and abnormally heavy snowfall: the snow is deeper and will probably lie longer than it has for several years past. At Naini Tal and Mussoorie, on the contrary, there was apparently no snow of importance.

In the Eastern Himalayas the snowfall has been normal or less than normal. There is, however, some evidence that the early snow which characterised the winter in Lahoul, Kulu, and Plach extended into the Eastern Himalayas also, as the Deputy Commissioner, Darrang, says the Bhutias explained their late appearance by referring to the quantity of snow in the passes.

**I.—AFGHAN HIGHLANDS.****(a) HILLS WEST OF DERA ISMAIL KHAN.**

The Deputy Commissioner, Dera Ismail Khan, furnishes the following report on the snowfall on the ranges west of the Indus in the season 1888-89:

The season was marked by the absence of cold winds, and was dry till the rainfall of February and March. There was no snow observable till the

end of November, when slight snow was seen on the peaks of the Takht-i-Suleman hills. The snow gradually increased and extended, but towards the middle of February it slowly disappeared.

(b) HILLS WEST OF KOHAT.

The Officer in charge of the Thull Outpost forwards the following information through the Deputy Commissioner of Kohat:

*December 1888.*—Snow to the depth of about 2 feet fell on the Spinghar, Piwar, Shalozan, and Kirman, and to the depth of about 6 inches on the Terah on the 21st.

*January 1889.*—There was a good snowfall on the Spinghar between January 28th and February 1st. After this fall heavy rains occurred which washed the snow away from the lower hills and the maidans, only the Sufed Koh and higher ranges remaining white.

*February 1889.*—There was a good snowfall from the 18th to the 23rd, and again on the 25th of February. The following was the approximate depth of snow which fell:

Sufed Koh (Spinghar)	12 to 13 inches.
Dandaghar	2 to 3 „
Zawa	4 to 5 „
Sumana	1 to 1½ „
Terah	4 to 4½ „

The Deputy Commissioner, Kohat, is of opinion that any snow of less than 7 inches depth soon melts away at this season, so that there can have been but little snow on these ranges by the end of February.

(c) HILLS WEST OF PESHAWAR.

The Assistant Commissioner, Mardan, through the Deputy Commissioner, Peshawar, forwards the following information:

*January 1889.*—Snow fell to a depth of from 1 to 2 feet on the hills bordering the Sadhum Valley during January 1889.

*February.*—About 2 feet of snow fell on the Bahman hills in February. None fell in March.

The Political Officer, Khyber Pass, reports that—

*January.*—Snow fell on three occasions in Rajgal and the maidan of Terah, the total depth being 3 feet, and on two occasions on the Lakka hill to a depth of 2 feet.

*February.*—Heavy rains fell during February in the Terah hills, followed by snow. Depth of snow 2 feet or a little more.

The snowfall in the Khyber and Lakka and Tartara hills was between one and two feet.

## II.—THE HIMALAYAS.

### I.—THE PUNJAB AND KASHMIR HIMALAYAS.

(a) *Leh.*—The Reverend F. Redslob reports that there has been extremely little snow during the winter. There has not been so little snow since the winter of 1885. On the Kashmir highlands also there is very little snow.

(b) *Lahoul.*—The Reverend A. W. Heyde reports that heavy rain and snow fell in the autumn of 1888, and that the passes were closed most unusually early; but, with this exception, “the present winter, which is now nearing its end, has on the whole been a normal one.”

(c) *Murree.*—The following gives the monthly snowfall at Murree and on the hills adjacent to Kahuta:

	Murree. Ft. in.	Kahuta. Ft. in.
January 1889.	4 9	2 6
February	2 6	1 9
March	Nil	Nil
April	Nil	Nil

(d) *Kangra and Kulu.*—The Assistant Commissioner, Kulu, reports an extraordinary fall of snow in the autumn months, as was the case in Lahoul.

There was also an exceptionally heavy fall of snow between January 30th and February 2nd.

The following are the reported depths of snow at the end of each month on the chief passes in the Kulu and Plach districts:

*Kulu District.*

Name of Pass.	Height.	DEPTH OF SNOW AT END OF		
		January.	February.	March.
	Feet.	Feet.	Feet.	Feet.
Rotang . . . . .	13,000	13½	18	17
Hamta . . . . .	14,500	11	14	16
Chandar Khani . . . . .	...	13	14	10
Barsai . . . . .	...	7	11	6
Pushtari . . . . .	...	6	7	3
Bubu . . . . .	10,000	9	11	6
Lori Achri . . . . .	...	9	10	5
Majang . . . . .	...	6	5	2
Baragarh . . . . .	...	8	8	3

*Plach District.*

Name of Pass.	Height.	DEPTH OF SNOW AT END OF		
		January.	February.	March.
	Feet.	Feet.	Feet.	Feet.
Jalori . . . . .	10,500	8	16	4
Raghopur . . . . .	...	8	16	5
Namu . . . . .	...	4	11	4
Chul . . . . .	...	10	22	6
Srikand . . . . .	15,000	30	55	56
Basleo . . . . .	11,000	8	17	6
Palhach . . . . .	...	5	10	10
Maghian . . . . .	...	7	16	6
Dundku . . . . .	...	8	16	6
Gargarasan . . . . .	17,000	9	18	12
Suphakun . . . . .	...	4	12	8
Tirath . . . . .	...	10	20	13
Himri . . . . .	...	4	13	4
Sigran . . . . .	...	...	12	4

The Assistant Commissioner is of opinion that last year's figures were exaggerated, as the snowfall of the past winter was very much heavier than that of the winter before. Snowfall is said to be heavier and later than has been known for many years. It may be taken that the snow is deeper on the high ranges and will probably lie longer this year than it has for several years past. All over Kulu, Plach, and Lahoul there had been an unusually large quantity of snow during the winter.

## II.—NORTH-WESTERN PROVINCES HIMALAYAS.

Neither at Naini Tal nor at Mussoorie does there appear to have been any snow of importance.

## III.—ASSAM HIMALAYAS.

(a) The Deputy Commissioner, Kamrup District, writes that from enquiries made during his (the Deputy Commissioner's) visit to Dewangiri he is of opinion that the fall of rain and of snow was much less during the past year than during preceding years.

(b) The Deputy Commissioner, Darrang, writes: "On making enquiries during the winter from the different hill tribes, &c., ..... it appears that the snowfall was less this year than last."

On the Koriapara side "the snowfall in the hills appears this year to have been normal."

"The Bhutias explained that their late arrival is due to the extra quantity of snow that had fallen in December and January, but it is doubtful to what extent their statements are trustworthy. They were in want of an explanation for their late arrival, and gave this as their reason for the same."

**Abnormal features of pressure in India during the past four months.**—In January the pressure variations were small, comprising a slight excess over the Punjab and the Peninsula and a deficiency elsewhere. In February they were even smaller than in January, hardly exceeding  $0.02$ " in any part of India. They were in addition very irregularly distributed. In March the pressure variations assumed a more distinct distribution, though they remained generally small. They showed that a deficiency of pressure existed over Burma and the greater part of Bengal, and an excess over Behar, the North-Western Provinces, and the Punjab. In the south of the Peninsula, both on the west and east sides, there was also a slight deficiency, while the Deccan, the whole of the Central parts of the country, Sind, and Rajputana participated in the excess noticed over Upper India. The greatest excess was in Central India. In April approximately the same distribution of the abnormals obtained. There was again a slight deficiency over Burma, Bengal, and the south of the Peninsula, and an excess over the Central parts of the country and in Upper India. In Sind, however, a change had occurred, and the excess of the preceding month had been replaced by a deficiency. The barometric anomalies for the first half of May show two important changes. In Burma pressure has become excessive, while in the North-Western Provinces the excess, which has been maintained since the commencement of the year, has given way and been replaced by a considerable deficiency. At the same time the deficiency, which has prevailed over Bengal all the year, has intensified considerably. An excess of pressure is reported from the Punjab, Sind, Rajputana, the whole of the Central parts of the country, and the north and east of the Peninsula. In the southwest from Goa southward to Madura and Colombo there is a slight deficiency.

*Summarising this information*, it appears that there has been an excess of snow over a limited area of the mountain range to the north of the Punjab and an excess of pressure over the Punjab, Rajputana, the Central parts of the country, and the north of the Peninsula; deficient or not more than normal snowfall over the mountain ranges to the west of the Indus, as well as over the whole of the Himalaya range from the North-Western Provinces eastward to Assam; and a deficiency of pressure in Assam, Bengal, a portion of the North-Western Provinces, and in the south of the Peninsula.

Premising that a heavy snowfall and high average pressure are not conducive to the proper extension of the monsoon current, it would appear that in the Punjab and Rajputana there is a probability of the rainfall being scanty;

that over the Central parts of the country and the north of the Peninsula the monsoon rainfall will be normal or slightly below the normal, with a tendency to scantiness in Central India, Khandeish, and the Bombay Deccan.

Premising that a slight snowfall and low average pressure are conducive to rainfall, it would appear that the monsoon rainfall will be heavy in Assam, Bengal, the greater part of the North-Western Provinces—more particularly along the foot of the hills—and the south-west of the Peninsula.

So far as the land observations are concerned, there is very little that would lead to the supposition that the “bursting” of the monsoon would be delayed on either side of India; but for some days antecedent to the present date pressure has apparently been abnormally high over the Bay, and this may be an indication of a delay in the establishment of the monsoon current over Bengal. The high pressures which now obtain in Burma would seem to indicate that there will be a strong set of the monsoon towards Orissa and the north-east angle of the Bay.

Briefly, the indications are in favour of—

A good monsoon rainfall over North-Eastern India, including Upper Burma, Assam, Bengal, and the greater part of the North-Western Provinces, and also over the south-west and west of the Peninsula.

A normal or slightly deficient (more particularly in Central India, Khandeish, and the Bombay Deccan) monsoon rainfall over the Central parts of the country and the north of the Peninsula.

A deficient rainfall in the Punjab and parts of Rajputana.

W. L. DALLAS,

*Assistant Meteorological Reporter to the  
Government of India.*

SIMLA, 20th May, 1889.

E. C. BUCK,

*Secretary to the Government of India.*



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weather Review of India for the week ending 8 a.m. on  
Monday, June 3rd, 1889.**

The weather has been less unsettled than it was last week, and conditions have been generally more normal. The distribution of pressure has on the whole been such as is characteristic of the period preceding the appearance of the monsoon current; and the relative coolness which was so remarkable last week has disappeared and been succeeded by a period of somewhat excessive heat. At the close of the week a remarkable storm appeared on the West Coast and ushered in the monsoon to that region with considerable violence. Previous to the appearance of this storm incursions of monsoon winds had occurred over Southern India; but the current had on each occasion retreated again to the southward, and what is popularly described as the "burst" of the monsoon on the West Coast followed in the wake of the above mentioned storm.

The Chart of the 28th showed that the barometer was falling everywhere—briskly in Sind. Pressure was highest on the West Coast, with relatively low readings over Sind on the one hand and the Central and North-Western Provinces on the other, with an intervening shoulder of relatively high pressure over Rajputana and Central India. On the following day there was comparatively little alteration in the general distribution of pressure, though both low pressure areas had to a limited extent filled up, and readings were more uniform. On the South-West Coast there was a considerable deficiency of pressure when compared with the normal. On the 30th another general barometric fall was reported. The change was greatest in the Northern and Central parts of the country, and there was hence an increase in the steepness of the barometric gradients. The area of relatively low pressure off the South-West Coast was even more marked than on the previous day. The depression was apparently travelling north-westward up the Coast. On the 31st the barometer had risen on the West Coast, while it had fallen elsewhere—briskly in the north—and the general distribution approximated fairly closely to the normal. The relative depression of the South-West Coast was less defined than on the two preceding days. On the 1st, while the general conditions were such as are normally experienced at this season, the observations around the Bay and from the Malabar Coast gave indications of unsettled conditions in both those regions. On the following day, the 2nd, the observations showed that a feeble depression had developed over the Bay, off the Madras Coast, and that a more important depression was approaching the Bombay Coast from the Arabian Sea. On the 3rd the Madras disturbance was no longer observable as a distinct depression; but the storm on the West Coast had become more defined and was causing a rapid fall of the barometer at Bombay and Ratnagiri.

*Winds.*—On the 27th. an exceptionally strong northerly component was shown in the winds over Rajputana, the Central parts of the country, Khandeish, and the North Konkan; but as pressure fell in the north and increased in the south of India, the winds over the greater part of the country assumed the normal directions, blowing from the westward over the Central districts, from south over the Bay and Lower Bengal, from east in Assam and North Bengal, and from north-west down the Gangetic plain. On the West Coast the wind was steadily from the south-eastward or eastward—a direction due to the indraught towards the depression off that Coast.

*Temperature.*—As noticed above, the past week has been one of generally excessive temperature. The increase of heat which was in progress almost everywhere at the close of the preceding week was maintained and the mean average temperature of the different Provinces continued to increase as the week advanced. The maximum temperature of the week was 123° 5', recorded at Jacobabad on June 1st. The following table shows the excess or defect of the

mean average temperature of the different Provinces and the change which has taken place since the preceding week :

PROVINCES.	Difference of mean temperature of week from normal.	Rise or fall since preceding week.
Burma	+ 3.6°	+ 1.8
Bengal	+ 3.3°	+ 5.5
North-Western Provinces	+ 2.8°	+ 9.1
Punjab	+ 2.0°	+ 6.4
Bombay	+ 2.0°	+ 1.5
Central Provinces and Berar	+ 4.0°	+ 8.3
Guzerat, Central India	+ 5.0°	+ 9.5
Sind and Rajputana	+ 3.7°	+ 6.5
Madras	+ 1.2°	— 1.0

From this it will be seen that there has been a rise of from 8° to 9° in the mean average temperature over the North-Western Provinces, the Central Provinces, Berar, Guzerat, and Central India.

*Rain.*—Except in parts of the Peninsula and in Burma and Assam, where it has fallen daily, rain has been less general and less heavy than it was last week. Showers were reported from the Deccan, the north of the Punjab, Lower Bengal, and Orissa on the 28th; from Lower Bengal and Orissa on the 29th; from Lower Bengal and the Circars on the 30th; from the Deccan on the 31st and 1st; and from the Circars, North Bengal, Khandwa, and Amraoti on the 3rd. These falls were however generally light showers, accompanying in many cases thunder or dust storms; and the only regions where there was heavy or continuous rain are the Provinces noted above.

Of the fifty-one rainfall divisions, seven report no rain; in eight divisions there was an excess; and in the remainder, a deficiency. The only important excess is in Assam, where the Southern Valley has received 6½ inches and the Northern Valley 2½ inches more than usual. In the divisions in other parts of India which report an excess the amount of the excess is generally under ½ inch. The greatest absolute defect is reported from Burma; but, relatively to the average, the greatest deficiency is in the North-Western and Central divisions of India.

Eastern, Deltaic, and Central Bengal have received much less than the usual amount, while in North Bengal there has been a slight excess. Orissa, Chota Nagpur, and the whole of Behar have received hardly any rain; and the North-Western Provinces and Oudh were practically rainless. The Punjab had showers in all except the hill districts; and in the submontane districts the small normal rainfall was slightly exceeded.

Malabar and Mysore received slightly more than the average rainfall; but in the other divisions in the west of the Peninsula the rainfall was short—largely so in Coorg. All over the Central parts of the country nothing more than a few slight showers are reported; and the same is true of Bombay (North), Rajputana, and Central India. On the East Coast all the divisions, except the south, report deficient rains.

The column giving the state of the seasonal rainfall shows that up to the present date the rainfall has been rather largely deficient throughout the greater part of Burma—excessive in Assam, but deficient over the whole of the Bengal Presidency, except Orissa. In the east of the North-Western Provinces and in Oudh there has been a local excess; but in other divisions within these Provinces, the rainfall, like that of Bengal, has been decidedly deficient. In the Punjab on the contrary, except in the hill districts, the rainfall up to date has been exceptionally heavy. All over the Peninsula and the Central parts of the country the rainfall is, so far, largely deficient; but in Guzerat, Kattiawar, the east of Rajputana, and the west of Central India there is a large excess—the result of the heavy rain of last week.

In the returns of maximum falls within the districts there are very few amounts of any importance—a condition which was to be expected in face of the generally deficient averages. In Burma there are no falls requiring notice, but in Assam the amounts are larger: Cherrapunji received 37½ inches, and Sibsagar and Goalpara 7 inches. North Bengal received fairly large amounts, Cooch Behar reporting 9 inches and Alipore (in Jalpaiguri) 8½ inches. In no other part of Bengal were there any large amounts. In Upper India no station reports one inch of rain. In the south-west of the Peninsula the heaviest amounts vary between 10 and 13 inches.

Provinces.	Division.	RAINFALL DATA FOR WEEK ENDING JUNE 3RD, 1889.			RAINFALL DATA FROM MAY 13TH TO JUNE 3RD, 1889.		
		Average Actual Rainfall of Division.	Average Nor- mal Rainfall of Division.	Excess or Defect, in inches.	Average Actual Rainfall of Season to date.	Average Nor- mal Rainfall, May 13th to June 3rd.	Excess or De- fect of (Season- al) Rainfall expressed as a per- centage.
		Inches.	Inches.	Inches.	Inches.	Inches.	Per cent.
BURMAH	Tenasserim	3'04	7'71	-4'67	14'66	18'06	-19
	Lower Burmah	1'43	4'23	-2'80	3'59	10'13	-65
	Central Burmah	1'67	3'41	-1'74	3'44	7'61	-55
	Upper Burmah	1'75	?	?	2'29	?	?
	Arakan	1'35	8'65	-7'30	3'91	16'96	-77
BENGAL AND ASSAM	Eastern Bengal	0'93	3'12	-2'19	4'28	7'10	-38
	Assam (Surma)	10'72	3'95	+6'77	16'82	12'50	+35
	Do. (Brahmaputra)	5'15	2'42	+2'73	9'40	7'71	+22
	Deltaic Bengal	0'32	1'63	-1'31	2'05	4'09	-50
	Central Bengal	0'44	1'29	-0'85	2'62	3'55	-26
	North Bengal	3'02	2'63	+0'39	6'37	8'08	-21
	Orissa	0'40	1'14	-0'74	2'75	2'54	+8
	Chota Nagpur	0'03	0'73	-0'70	1'20	1'89	-37
	Behar (South)	0'03	0'36	-0'33	0'87	1'17	-26
	Do. (North)	0'08	0'60	-0'52	1'19	1'75	-32
NORTH-WESTERN PROVINCES AND ODISH.	North-Western (East). Provinces	0	0'18	-0'18	0'92	0'41	+124
	Oudh (South)	0	0'12	-0'12	0'49	0'46	+7
	Do. (North)	0	0'23	-0'23	0'89	0'82	+9
	North-Western (Central). Provinces	0'03	0'18	-0'15	0'29	0'37	-22
	North-Western (West). Provinces	0	0'26	-0'26	0'26	0'56	-54
	North-Western (Submontane). Provinces	0'01	0'41	-0'40	0'53	0'88	-40
PUNJAB	Punjab (South)	0'07	0'11	-0'04	1'03	0'43	+140
	Do. (Central)	0'05	0'12	-0'07	0'51	0'48	+6
	Do. (Submontane)	0'17	0'14	+0'03	0'80	0'59	+36
	Do. (Hill Districts)	0	1'29	-1'29	1'61	2'90	-44
	Do. (North-West)	0'03	0'22	-0'19	1'17	0'86	+36
	Do. (West)	0'04	0'14	-0'10	0'56	0'40	+40
BOMBAY AND MALA- BAR COAST DIS- TRICTS (MADRAS).	Malabar	5'98	5'71	+0'27	7'92	12'72	-38
	Madras (South Central)	0'74	0'75	-0'01	1'82	2'62	-31
	Coorg	1'33	3'76	-2'43	4'01	7'41	-46
	Mysore	1'06	0'95	+0'11	1'50	2'75	-45
	Konkan	1'67	2'81	-1'14	2'15	3'41	-37
	Bombay Deccan	1'20	1'27	-0'07	1'85	2'31	-20
	Hyderabad (North)	...	...	...	...	...	...
	Khandeish	0'22	0'77	-0'55	0'47	1'40	-66
CENTRAL PROVINCES AND BERAR.	Berar	0'13	0'64	-0'51	0'51	0'81	-37
	Central Provinces (West)	0'01	0'69	-0'68	0'11	0'94	-88
	Ditto (Central)	0'01	0'62	-0'61	0'13	0'93	-86
	Ditto (East)	0'04	0'85	-0'81	0'49	1'24	-60
BOMBAY (NORTH)	Guzerat	0	0'35	-0'35	1'81	0'52	+248
	Kattiawar	0'02	0'28	-0'26	0'49	0'35	+40
	Sind	0'04	0'03	+0'01	0'05	0'08	-38
RAJPUTANA AND CEN- TRAL INDIA.	Central India (East)	0'03	0'38	-0'35	0'64	0'66	-3
	Rajputana (East), India (West). Central	0'07	0'27	-0'20	0'82	0'66	+24
	Rajputana (West)	0	0'17	-0'17	0'34	0'50	-32
MADRAS	East Coast (North)	0'55	0'62	-0'07	1'51	2'68	-44
	Hyderabad (South)	0'24	0'58	-0'34	0'32	1'18	-72
	Madras (Central)	0'39	0'86	-0'47	0'83	1'89	-56
	East Coast (Central)	0'08	0'41	-0'33	0'46	1'33	-65
	Ditto (South)	0'55	0'40	+0'15	1'16	1'80	-35
	Madras (South)	0'17	0'40	-0'23	0'87	1'36	-36

W. L. DALLAS,

SIMLA, 6th June, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and Prospects of the Crops.

**Madras.**—*For week ending 1st June.*—No rain in Madras ; good on West Coast and Nilgiris, Trichinopoly, and Tanjore ; fair in Ganjam, Vizagapatam, Bellary, North Arcot, and Salem ; and slight elsewhere. Crops generally good, but withering in parts of Cuddapah, Anantapur, Chingleput, and South Arcot ; affected also from want of water in Vizagapatam, North Arcot, and Coimbatore. Gingelly blighted in Vizagapatam. Water-supply scarce in Ganjam ; insufficient in Vizagapatam, Nellore, and Tinnevely. Stock suffering very badly, chiefly from rinderpest, in Malabar, and badly in Trichinopoly, Tanjore, and Anantapur. Prices rising in eleven districts, falling in four, and stationary in others. Prices of rice and *ragi* risen in Ganjam. 1,452 deaths from cholera in Ganjam. Labourers employed last day of week—on Rushikulya works, 5,408 ; Gopalpore Canal, 5,394 ; Ghat Roads, 1,267 ; average daily number on drinking-water tanks and wells, 3,694 ; on minor irrigation works, 2,268. General prospects favourable, except in Ganjam.

**Bombay.**—*For week ending 5th June.*—Rain in Deccan and Southern Mahratta Country and in parts of Karachi, Shikarpur, Nasik, Colaba, and Ratnagiri. Preparations for next season's crops progressing generally. Sowing commenced in Ahmedabad, Colaba, Ratnagiri, and Poona, and continues in Belgaum and Kanara. Fodder scarce in parts of Nasik, Thana, Poona, Ahmednagar, Dharwar, Kathiawar, and Baroda. Drinking-water scarce in parts of Nasik, Thana, Sholapur, and Dharwar.

**Bengal.**—*For week ending 4th June.*—Moderate rain has fallen in East and North Bengal and in parts of South-West Bengal, and also in the Bhagalpur district. Agricultural prospects have slightly improved in consequence of this rain and the general rain reported last week. More rain is still generally wanted, and in some places the cultivation is retarded and the newly sown *aus* and jute crops are suffering. Sugarcane and indigo are better, but are also in want of more rain in places. The spring rice harvest is nearly over, and the reaping of the *cheena* crop in Behar continues. No material improvement in the prices of food-grains, which continue to be high throughout the Province. Concerning the distress in the Patna division, the latest report shows that the pressure is being felt beyond the limits of the affected tracts, and that the number of persons employed on relief works is increasing. The attendance on relief works in the Sonthal Parganahs is said to have fallen off considerably.

**North-Western Provinces and Oudh.**—*For week ending 5th June.*—No rain. Weather very hot. Harvesting nearly over. Sugarcane, indigo, and extra crops being irrigated. Markets well supplied. Prices fluctuating. Condition of cattle good.

**Punjab.**—*For week ending 5th June.*—Slight rainfall in several districts. Prices falling in Sialkote and Shahpur, unsettled in Peshawar, and stationary elsewhere. Threshing operations nearly completed, and ploughing for and sowing of *kharif* crops still in progress. Cotton and sugarcane crops progressing favourably. Outturn is reported poor from Amritsar, average from Lahore, and good from Rawalpindi. Stock cattle are reported healthy. Pasturage or fodder sufficient throughout the Province.

**Central Provinces.**—*For week ending 5th June.*—Weather cloudy and hot, with slight rain in Sambalpure. Ground being prepared for autumn sowings. Early rice sowings commenced in Sambalpure. Scarcity of water in almost all districts. 400 cattle are reported to have died from scarcity of water and fodder in the Khandwa tahsil.

**Burma.**—*For week ending 1st June.*—Rain fell in all districts, except Minbu and Yamethin in Upper Burma. Ploughing has commenced in some districts. Cattle-disease is reported to be severe in Shwegyin district. The price of paddy has risen 11 per cent. in Sandoway. Elsewhere there are no marked fluctuations. The food-supply is sufficient, except in Mawteik in Myodoung; but even there scarcity is not likely to become serious.

**Assam.**—*For week ending 5th June.*—Weather seasonable. Rainfall sufficient. Ploughing for winter rice continues. Prospects of tea and other crops generally good.

**Mysore and Coorg.**—*For week ending 5th June.*—Light rain in Civil and Military Station of Bangalore. Rain reported throughout the State. Standing crops good. Sowing continues in parts. Want of rain felt in parts of Bangalore, Tumkur, and Hassan districts. Elsewhere prospects are favourable. Prices slightly risen in the Kolar district.

Good rain during the week in Coorg. Light continuous rains set in on 3rd instant. Prospects good. Health good.

**Berar and Hyderabad.**—*For week ending 5th June.*—Weather very hot. Slight rainfall during the week. Preparation for *khari* crops still continues. General condition of cattle good. Fodder sufficient, except in the Amraoti district. Prices generally steady.

Slight rain in Hyderabad during week. Reaping of hot-weather crops still continues. Scarcity of fodder and water felt generally. Prices stationary.

**Central India.**—*For week ending 5th June.*—Slight rain in Baghelkhand and Western Malwa, with hailstorm. Ploughing commenced in Bhopal. *Khari* sowings will shortly commence in Bhopawar. Agricultural operations completed in Goona. Condition of agricultural stock improved in Goona. Weather cloudy and hot.

**Rajputana.**—*For week ending 5th June.*—Rain has fallen in Bikaneer. Agricultural operations progressing in some States. Agricultural stock fair generally. Fodder sufficient, except in Marwar, Kherwara, and Meywar. Prices rising in Meywar and Bhurtore.

**Nepal.**—*For week ending 30th May.*—Slight rain. Weather fair. Prospects good.

E. C. BUCK,

Secretary to the Government of India.



GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. VI of 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total mean length open.	RECEIPTS FOR WEEK ENDING 12TH MAY, 1888.		Total mean length open.	RECEIPTS FOR WEEK ENDING 11TH MAY, 1889.		TOTAL RECEIPTS FROM 1ST APRIL TO 12TH MAY, 1888.		TOTAL RECEIPTS FROM 1ST APRIL TO 11TH MAY, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1st May, 1889	East Indian	1,514	9,70,736	641	1,514	10,26,894	678	59,44,499	655	57,27,847	631	...	2,16,652
ditto	Patna-Gya	57	8,514	149	57	9,456	165	59,683	174	59,986	175	297	...
ditto	Dildarnagar-Ghazipur	12	1,601	133	12	1,148	96	8,023	111	8,034	84	...	1,989
ditto	Rajputana-Malwa	1,664	4,20,313	253	1,664	4,50,000	270	24,20,975	242	27,74,169	285	3,53,194	...
ditto	Bengal Nigpur (a)	186	43,681	235	186	58,561	200	2,65,492	238	3,36,337	196	70,845	...
ditto	Southern Mahratta (b)	850	7,55,83	89	857	96,010	112	5,11,163	100	5,23,097	102	12,834	...
ditto	Do. Mysore Section	140	10,518	75	219	14,307	65	61,381	73	77,123	59	15,802	...
ditto	Indian Midland	211	(c) 24,411	116	588	(d) 74,909	127	(e) 1,43,786	114	(d) 4,02,176	117	2,58,390	...
ditto	Villupuram-Dharmavaram (Nellore Branch)	83	3,958	48	83	4,600	55	23,682	48	24,449	50	767	...
ditto	Bareilly-Pilibhit	30	2,110	59	36	2,410	67	10,827	50	13,850	64	3,023	...
	<b>TOTAL</b>	4,753	15,61,425	329	5,323	17,38,295	327	94,49,517	331	99,46,028	319	4,96,511	...
	<i>State Lines worked by Government.</i>												
1st May, 1889	North-Western (e)	2,411	4,80,187	199	2,386	5,39,071	226	29,13,726	201	32,18,888	230	3,05,162	...
ditto	Oudh and Rohilkhand	693	1,68,880	244	692	1,83,189	268	10,42,135	252	10,39,731	250	...	2,404
ditto	Bengal Central	125	11,602	93	125	14,860	119	67,560	90	81,261	108	13,692	...
ditto	Wardha Coal	45	16,222	360	45	13,715	305	1,02,288	379	1,21,147	460	13,859	...
ditto	Eastern Bengal Railways	673	1,53,226	228	673	1,59,140	236	8,41,335	268	9,43,443	233	1,02,108	...
ditto	Nalhati	27	1,745	64	27	1,536	56	10,925	67	9,043	55	...	1,932
ditto	Tirhoot	259	43,496	168	273	28,900	142	2,40,175	153	2,22,504	130	...	17,671
ditto	Lucknow-Sitapur	105	5,771	55	105	7,580	72	32,095	51	40,516	64	8,421	...
ditto	Sihraman	31	959	31	31	1,176	38	5,047	27	6,436	35	1,389	...
ditto	J-rhat	7	32	4	7	32	4	324	7	233	5	...	91
ditto	Cherra-Companyganj	392	69,049	176	553	1,04,436	189	4,03,879	191	6,03,199	182	1,99,320	...
ditto	Burma												
	<b>TOTAL</b>	4,768	9,51,169	199	4,917	10,65,835	217	56,59,548	200	62,86,401	218	6,26,853	...
	<i>Lines worked by Guaranteed Companies.</i>												
1st May, 1889	Madras	840	1,47,073	175	840	2,02,521	241	9,57,628	190	10,88,755	221	1,31,127	...
ditto	South Indian	654	1,03,592	158	654	1,19,359	183	6,35,905	162	6,65,377	174	29,472	...
ditto	Great Indian Peninsula	1,504	(f) 12,16,697	810	1,447	(g) 8,97,658	621	(f) 70,81,613	785	(g) 56,75,365	670	...	14,06,248
ditto	Bombay, Baroda and Central India (h)	461	3,23,254	701	461	3,16,000	685	19,96,782	722	19,94,361	739	...	2,427
	<b>TOTAL</b>	3,459	17,90,616	518	3,402	15,35,538	451	1,06,71,934	514	94,23,858	473	...	12,48,076
	<b>GRAND TOTAL (GUARANTEED AND STATE)</b>	12,980	43,03,210	332	13,642	43,39,668	318	2,57,80,999	332	2,56,56,287	321	...	1,24,712
	<b>GROSS ESTIMATED EXPENSES</b>		...	...		...	...	1,15,59,776	149	1,15,87,367	145	27,591	...
	<b>NET RECEIPTS</b>		...	...		...	...	1,42,21,223	183	1,40,68,920	176	...	1,52,303
	<i>Assisted Companies.</i>												
1st May, 1889	Tarakeswar	32	5,841	263	32	5,775	260	45,122	338	40,567	304	...	4,555
ditto	Dibrui Sadiya	...	...	...	...	(i) ...	...	(j) 41,006	105	(k) 47,351	121	6,345	...
ditto	Bengal and North-Western	376	64,012	170	376	64,500	172	3,39,761	151	3,49,517	159	9,756	...
ditto	Rohilkhand-Kumaon	67	6,288	101	67	8,518	127	49,736	124	48,595	121	...	1,141
	<b>TOTAL</b>	465	76,641	165	465	78,803	169	4,75,625	146	4,86,030	153	10,405	...
	<i>Native States.</i>												
1st May, 1889	His Highness the Nizam's Guaranteed	277	27,993	101	354	42,230	119	1,92,442	116	2,53,477	122	61,035	...
ditto	His Highness the Gaekwar's	59	3,721	63	59	2,460	42	24,438	69	18,306	54	...	5,032
ditto	His Highness the Gaekwar's Verangam-Melasa-Vadnagar	21	1,441	69	27	1,450	53	7,724	61	7,969	50	245	...
ditto	Bhuvanagar-Gondal-Junagar-Porbandar	193	26,449	137	260	37,700	145	1,72,638	149	2,30,149	151	57,511	...
ditto	Morvi	68	6,322	93	68	5,032	74	33,487	82	32,589	80	...	898
ditto	Jodhpore	124	8,804	71	124	7,100	57	47,337	64	44,669	62	...	2,668
	<b>TOTAL</b>	742	74,640	101	892	95,972	108	4,78,066	107	5,87,359	113	1,09,293	...

(a) Includes the Katni-Umaria Branch.  
(b) Includes the Bellary-Kistna State Railway.  
(c) Includes the Sindia State Railway.  
(d) Includes the Sindia and Bhopal-Itarsi State Railways.  
(e) Includes the Amritsar-Pithankot and Rajpura-Bhatinda State Railways.  
(f) Includes the Dhond Manmad, Khamgaon, Amraoti, and Bhopal-Itarsi State Railways.

(g) Includes the Dhond Manmad, Khamgaon, and Amraoti State Railways.  
(h) Includes the Patni Branch.  
(i) Return not received.  
(j) Total receipts from 1st April to 5th May, 1888.  
(k) Total receipts from 1st April to 4th May, 1889.

M. C. BRACKENBURY, Major, R.E.,  
Officiating Deputy Secretary.

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*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

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GOVERNMENT OF INDIA.  
DEPARTMENT OF FINANCE AND COMMERCE.  
RETAIL PRICES FOR THE 2ND HALF OF APRIL 1889.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLU (Sorghum vulgare).		BAJRA OR CUMBU. (Pennisetum typhoides).		MARUA OR RAGI (Eleusine coracana).		KANGRI OR KAKRI, ITALIAN WHEAT (Triticum italica).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA (Cicer arietinum).		MAIZE (Zea Mays).		ARHAR OR THUR CADIAN PEA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.	Present.	Past.
	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
<b>Burma—</b>																										
<i>Tenasserim—</i>																										
Mergui . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tavoy . . . . .	3 15	3 15	...	...	11 1	11 1	11 11	11 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulmein and Amherst . . . . .	...	...	...	...	11 4	11 4	14 0	15 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Pegu (deltaic)—</i>																										
Pegu . . . . .	...	...	...	...	9 7	9 7	11 3	11 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kangoon . . . . .	12 3	11 2	...	...	12 6	12 6	13 2	13 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thongwa . . . . .	...	...	...	...	11 6	11 5	13 1	13 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bassah . . . . .	...	...	...	...	11 9	13 0	14 0	14 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Pegu (inland)—</i>																										
Shwagayin . . . . .	...	...	...	...	9 13	10 10	10 6	11 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tharawadi . . . . .	...	...	...	...	13 5	13 5	15 8	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Flonada . . . . .	...	...	...	...	11 15	11 15	15 10	15 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Prome . . . . .	10 6	9 2	...	...	12 3	13 7	14 7	15 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungoo . . . . .	...	...	...	...	9 2	9 2	12 13	12 13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thayetmyo . . . . .	11 3	11 3	...	...	11 11	10 12	13 13	11 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Upper Burma—</i>																										
Mandalay . . . . .	11 0	11 0	...	...	10 2	11 0	11 3	12 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Arakan—</i>																										
Sandway . . . . .	...	...	...	...	18 0	18 0	20 9	20 9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyauk-pyu . . . . .	...	...	...	...	14 0	14 1	15 8	15 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Akyab . . . . .	...	...	...	...	14 0	14 0	17 0	17 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Assam—</b>																										
<i>Surma—</i>																										
Sylhet . . . . .	9 4	10 0	...	...	14 14	14 14	15 12	17 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cachar . . . . .	7 12	8 0	...	...	13 0	11 0	15 0	16 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Khasi and Jaintia Hills . . . . .	...	...	...	...	6 4	6 8	9 13	10 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Garo Hills . . . . .	...	...	...	...	6 0	6 0	16 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Brahmaputra—</i>																										
Goalpara . . . . .	16 0	16 0	...	...	8 0	8 0	16 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamrup . . . . .	10 0	10 0	...	...	8 0	8 0	16 8	20 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darrang . . . . .	7 0	7 0	...	...	12 0	12 12	16 0	18 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowrang . . . . .	8 0	8 0	...	...	8 0	8 0	16 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sibsagar . . . . .	...	...	...	...	6 8	6 8	16 0	20 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lakhimpur . . . . .	9 0	9 0	...	...	8 0	8 0	14 0	15 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

QUANTITIES PER RUPEE IN SEER OF 60 TOLAS.

[illegible]

† Re. 1-4-0 per 100 cobs.  
 ‡ None in market.  
 § Not procurable.  
 ¶ In sub-divisions retail prices of salt per rupee are :—  
 a In sub-divisions retail prices of salt per rupee are :—  
 b At Cox's Bazar retail price of salt 8 sers per rupee.  
 c In sub-divisions retail prices of salt per rupee are :—  
 d In sub-divisions retail prices of salt per rupee are :—  
 e In sub-divisions retail prices of salt per rupee are :—  
 f In sub-divisions retail prices of salt per rupee are :—  
 g In sub-divisions retail prices of salt per rupee are :—  
 h In sub-divisions retail prices of salt per rupee are :—  
 i In sub-divisions retail prices of salt per rupee are :—  
 j In sub-divisions retail prices of salt per rupee are :—  
 k At Ramapore Hant retail price of salt 10-2 sers per rupee.  
 l In sub-divisions retail prices of salt per rupee are :—  
 m In Serajgaunge sub-division retail price of salt 10-8 sers per rupee.  
 n In Nattore sub-division retail price of salt 9-12 sers per rupee.  
 o At Gadhanda retail price of salt 8 sers per rupee.  
 p At Fallacotta in Alipore sub-division retail price of salt 8 sers.  
 q At Siliguri retail price of salt 9 sers per rupee.  
 r At Bhadruck retail price of salt 8 sers per rupee.  
 s At Govindpore retail price of salt 9 sers per rupee.



## RETAIL PRICES FOR THE 2ND HALF OF APRIL 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

Districts.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM ( <i>Sorghum vulgare</i> ).		BAJRA OR CUMBU ( <i>Pennisetum typhoides</i> ).		MARUA OR RAGI ( <i>Eleusine coracana</i> ).		KANGNI OR KAKUN, ITALIAN MILLET ( <i>Setaria italica</i> ).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA ( <i>Cicer arietinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARHAR OR TUR CADJAN PNA ( <i>Cauphus indicus</i> ).		PINKWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
Bengal—continued.																										
Bihar, south—																										
Monghyr . . . . .	16 13	18 14	22 0	24 6	12 9	12 10	13 2	13 12	...	...	...	...	...	...	...	...	21 10	24 6	21 10	19 14	18 10	19 14	147 0	146 0	9 8	9 8
Gya . . . . .	15 8	16 8	21 0	25 0	8 8	9 4	12 8	14 0	...	...	...	...	...	...	...	...	19 0	21 0	...	...	...	...	200 0	200 0	9 2	9 2
Patna . . . . .	15 0	15 0	20 8	25 0	10 0	10 0	13 8	14 3	20 0	20 0	...	...	...	...	...	...	20 0	23 0	19 0	...	...	...	130 0	130 0	10 0	10 0
Shahabad . . . . .	14 8	16 8	20 0	23 0	8 8	9 0	13 8	15 0	...	...	...	...	...	...	...	...	20 8	23 0	...	...	...	...	160 0	160 0	10 0	10 0
Bihar, north—																										
Purneah . . . . .	14 9	16 0	...	26 0	13 0	13 0	15 0	16 0	...	...	...	...	...	...	...	...	16 0	16 0	...	...	...	...	200 0	200 0	9 0	9 0
Bhagalpur . . . . .	16 6	16 11	21 7	21 7	12 10	12 10	13 4	14 8	...	...	...	...	...	...	...	...	20 3	21 7	17 10	17 10	20 3	20 3	176 0	176 0	10 1	10 1
Dubbhanga . . . . .	13 11	13 11	19 6	18 4	10 4	9 9	13 2	14 13	...	...	...	...	...	...	...	...	20 9	22 13	19 6	20 9	19 6	21 2	183 4	160 0	11 6	11 6
Muzafferpore . . . . .	12 8	14 0	18 0	25 0	9 0	10 0	11 0	12 8	...	...	...	...	...	...	...	...	19 0	20 0	16 0	20 0	16 0	25 0	160 0	160 0	10 0	10 0
Saran . . . . .	14 8	17 9	20 8	21 0	8 8	8 4	12 14	12 8	...	...	...	...	...	...	...	...	20 8	21 4	16 8	20 0	21 0	22 8	160 0	160 0	10 0	10 0
Champaran . . . . .	12 0	13 0	21 0	22 0	7 0	9 8	11 8	12 8	...	...	...	...	...	...	...	...	17 8	17 8	17 0	18 0	21 0	22 0	160 0	160 0	9 8	9 4
N.-W. Provinces—																										
Eastern—																										
Mirzapur . . . . .	14 8	15 0	19 0	20 0	7 0	7 0	11 0	13 0	16 0	17 0	14 8	16 0	15 0	16 0	12 0	12 0	18 0	20 0	18 0	18 0	18 0	22 0	110 0	100 0	10 0	10 0
Benares . . . . .	14 6	14 13	17 14	18 7	8 15	9 12	11 9	13 9	16 13	17 14	13 9	16 13	14 10	20 9	15 7	15 7	18 7	18 7	21 2	21 2	20 1	20 1	120 0	120 0	10 6	10 6
Ghazipur . . . . .	14 13	16 1	20 9	20 9	7 1	7 1	11 9	12 14	18 0	18 0	15 7	16 12	20 9	...	...	...	21 4	21 4	18 0	18 14	20 10	21 14	154 0	154 0	9 10	9 10
Jaunpur . . . . .	14 0	14 0	16 8	16 8	7 0	7 0	14 0	14 0	...	...	...	...	...	...	...	...	19 8	19 8	16 0	16 0	22 0	22 0	140 0	140 0	8 8	8 8
Allahabad . . . . .	13 8	15 8	19 4	21 0	8 0	8 0	12 8	11 8	18 0	18 0	16 0	16 0	...	...	...	...	20 4	21 0	16 0	16 0	18 12	19 8	120 0	120 0	10 0	10 0
Central—																										
Banda . . . . .	16 0	17 4	22 0	22 8	8 0	8 0	12 0	12 0	...	...	...	...	...	...	...	...	21 8	23 0	...	...	...	...	160 0	160 0	10 0	10 0
Fatehpur . . . . .	15 8	15 8	20 12	21 8	11 8	11 8	12 0	12 0	...	...	...	...	...	...	...	...	19 0	21 0	...	...	...	...	160 0	160 0	10 8	10 8
Hamirpur . . . . .	17 2	18 6	24 0	24 2	9 0	9 0	11 0	11 8	...	...	...	...	...	...	...	...	24 10	24 11	...	...	...	...	140 0	140 0	11 4	11 4
Jalaun . . . . .	17 0	18 0	22 0	24 0	9 0	9 0	12 0	13 0	18 0	18 0	17 0	16 0	15 0	...	...	...	24 0	24 0	18 0	18 0	28 0	30 0	140 0	140 0	10 0	10 0
Cawnpore . . . . .	17 0	17 8	24 0	24 0	9 0	9 0	12 0	13 0	...	...	...	...	...	...	...	...	24 0	24 0	30 0	30 0	24 0	23 0	160 0	160 0	12 0	12 0
Etawah . . . . .	16 7	17 8	24 0	25 8	7 0	7 0	12 0	13 0	19 8	19 8	19 8	19 8	20 0	...	...	...	24 0	25 0	23 8	25 0	26 0	27 8	120 0	120 0	11 0	11 0
Farakhabad . . . . .	16 4	16 8	23 0	24 8	6 8	6 8	14 8	12 0	...	...	...	...	...	...	...	...	23 4	24 8	...	...	...	...	140 0	140 0	10 4	10 4
Mainpuri . . . . .	19 6	19 8	27 0	28 8	4 8	4 8	14 8	12 0	...	...	...	...	...	...	...	...	26 12	26 12	...	...	...	...	160 0	160 0	11 0	11 0
Etah . . . . .	18 12	19 8	28 4	30 0	6 8	7 8	13 8	13 0	...	...	...	...	...	...	...	...	24 0	24 0	...	...	...	...	160 0	160 0	11 4	11 4
Western—																										
Lalitpur . . . . .	17 0	17 4	23 0	22 0	9 0	9 0	10 8	10 8	21 0	21 0	15 0	15 0	20 0	...	...	...	20 0	21 0	21 0	21 0	13 0	13 0	160 0	160 0	10 0	10 0
Jhansi . . . . .	17 12	17 9	23 14	24 4	8 0	8 0	12 8	12 8	23 3	22 8	21 0	20 12	...	...	...	...	23 14	23 15	...	...	...	...	180 0	180 0	10 8	10 8
Agra . . . . .	15 8	16 0	23 0	23 8	5 0	5 0	9 0	9 0	22 0	22 0	19 0	20 0	...	...	...	...	24 0	26 0	31 0	29 0	18 0	15 0	100 0	100 0	12 0	12 0
Muttra . . . . .	16 8	16 0	23 0	26 0	5 0	5 0	12 0	12 0	20 0	20 0	20 0	20 8	...	...	...	...	28 8	28 8	30 0	30 0	30 0	28 0	140 0	140 0	12 0	12 0
Aligarh . . . . .	17 4	17 12	26 8	28 4	5 8	5 8	10 8	10 8	22 0	22 0	21 8	22 0	...	...	...	...	28 8	28 8	31 0	33 0	32 8	28 8	160 0	160 0	12 0	12 0
Bulandshahr . . . . .	17 4	18 0	26 8	30 0	7 0	7 0	11 0	11 0	22 0	22 0	20 0	21 0	...	...	...	...	26 0	26 0	32 0	33 0	19 0	17 0	120 0	120 0	11 4	11 4
Meerut . . . . .	16 8	17 0	26 0	29 0	6 0	6 0	13 0	13 0	26 0	26 0	20 0	20 0	14 0	14 0	14 0	14 0	24 12	25 0	30 0	34 0	24 0	22 0	100 0	100 0	11 4	11 4
Subcontinent—																										
Palla . . . . .	15 0	14 4	19 8	20 8	9 4	9 8	15 8	14 8	...	...	...	...	...	...	...	...	23 12	23 12	...	...	...	...	155 0	155 0	10 4	10 4
Azamgarh . . . . .	14 0	14 12	20 10	20 10	8 14	9 5	11 13	12 8	...	...	...	...	...	...	...	...	17 11	19 3	23 10	25 1	14 12	16 4	177 8	177 8	9 13	9 13
Gorakhpur . . . . .	12 11	13 2	20 14	20 18	9 1	9 1	12 15	12 12	...	...	...	...	...	...	...	...	18 14	18 12	...	...	...	...	140 0	140 0	9 15	9 15
Rasti . . . . .	17 8	18 8	28 0	24 0	8 8	8 8	14 0	14 0	16 0	16 0	...	...	...	...	...	...	25 8	26 8	22 0	20 0	22 0	22 0	140 0	140 0	10 0	10 0
Shahjahanpur . . . . .	18 8	19 12	28 4	30 0	8 8	8 8	14 0	14 0	...	...	...	...	...	...	...	...	25 12	26 8	...	...	...	...	160 0	160 0	11 0	11 0
Bansgaon . . . . .	18 4	19 12	28 4	30 0	8 8	8 8	14 0	14 0	...	...	...	...	...	...	...	...	25 12	26 8	...	...	...	...	160 0	160 0	11 0	11 0
Farrukhabad . . . . .	18 4	19 12	28 4	30 0	8 8	8 8	14 0	14 0	...	...	...	...	...	...	...	...	25 12	26 8	...	...	...	...	160 0	160 0	11 0	11 0



## RETAIL PRICES FOR THE 2ND HALF OF APRIL 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM (Sorghum sugarcane).		BAJRA OR CUNNU (Pennisetum typhoides).		MARJA OR RAGI (Eleusine indica).		KANGNI OR KANUN, ITALIAN MILLET (Setaria italica).		GRAM, CHENNA, CHOLA, KADALAY, OL SUNAGA (Cicer arietinum).		WHITE (Zea Mays).		ARHAR OR TURR CADIAN PEA (Cajanus indicus).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
<b>Punjab—</b>																										
<i>Southern—</i>																										
Hissar . . . . .	19 0	20 0	28 0	28 0	10 0	10 0	27 0	28 0	28 0	28 0	25 0	25 0	1 0	1 0	16 0	26 0	26 0	26 0	18 0	30 0	11 0	11 0	85 0	10 0	11 12	11 12
Ferozepore . . . . .	20 0	20 0	30 0	30 0	9 0	9 0	26 0	26 0	26 0	26 0	20 0	20 0	1 0	1 0	16 0	26 0	26 0	26 0	30 0	30 0	11 0	11 0	100 0	13 4	13 4	13 4
Montgomery . . . . .	20 0	20 0	30 0	30 0	9 0	9 0	26 0	26 0	26 0	26 0	20 0	20 0	1 0	1 0	16 0	26 0	26 0	26 0	30 0	30 0	11 0	11 0	200 0	11 0	11 0	11 0
<i>Central—</i>																										
Gurgaon . . . . .	20 0	21 0	30 0	30 0	11 0	11 0	26 0	26 0	26 0	26 0	24 0	24 0	1 0	1 0	16 0	26 0	26 0	26 0	25 0	25 0	16 0	16 0	130 0	11 0	11 0	11 0
Delhi . . . . .	18 0	18 0	30 0	30 0	11 0	11 0	24 0	24 0	24 0	24 0	20 0	20 0	1 0	1 0	16 0	26 0	26 0	26 0	25 0	25 0	27 0	27 0	80 0	11 0	11 0	11 0
Rohatak . . . . .	19 0	19 0	30 0	30 0	11 0	11 0	27 0	27 0	27 0	27 0	24 0	24 0	1 0	1 0	16 0	26 0	26 0	26 0	25 0	25 0	20 0	20 0	120 0	11 0	11 0	11 0
Karnal . . . . .	18 0	18 0	30 0	30 0	11 0	11 0	27 0	27 0	27 0	27 0	18 0	18 0	1 0	1 0	16 0	26 0	26 0	26 0	25 0	25 0	31 0	31 0	140 0	10 0	10 0	10 0
Lahore . . . . .	19 0	19 0	33 0	33 0	9 0	9 0	30 0	30 0	30 0	30 0	18 0	18 0	1 0	1 0	24 0	26 0	26 0	26 0	27 0	27 0	29 0	29 0	95 0	12 0	12 0	12 0
<i>Submontane—</i>																										
Ludhiana . . . . .	23 0	24 0	38 0	38 0	11 0	11 0	27 0	27 0	27 0	27 0	16 0	16 0	20 0	20 0	10 0	10 0	29 0	29 0	32 0	32 0	20 0	20 0	130 0	12 0	12 0	12 0
Jalandhar . . . . .	23 0	24 0	40 0	40 0	12 0	12 0	32 0	32 0	32 0	32 0	24 0	24 0	1 0	1 0	22 0	26 0	29 0	29 0	34 0	34 0	13 0	13 0	110 0	12 8	12 8	12 8
Ferozepore . . . . .	23 0	23 0	40 0	40 0	12 0	12 0	32 0	32 0	32 0	32 0	24 0	24 0	1 0	1 0	22 0	26 0	29 0	29 0	34 0	34 0	13 0	13 0	110 0	12 8	12 8	12 8
Gurdaspur . . . . .	24 0	24 0	40 0	40 0	12 0	12 0	32 0	32 0	32 0	32 0	24 0	24 0	1 0	1 0	22 0	26 0	29 0	29 0	34 0	34 0	13 0	13 0	110 0	12 8	12 8	12 8
Amritsar . . . . .	20 0	20 0	30 0	30 0	10 0	10 0	25 0	25 0	25 0	25 0	14 0	14 0	1 0	1 0	16 0	26 0	26 0	26 0	26 0	26 0	22 0	22 0	120 0	13 0	13 0	13 0
<i>Hills—</i>																										
Shimla . . . . .	14 0	14 0	16 0	16 0	8 0	8 0	16 0	16 0	16 0	16 0	14 0	14 0	20 0	20 0	8 0	8 0	19 0	19 0	21 0	21 0	9 0	9 0	65 0	8 8	8 8	8 8
Kangra . . . . .	16 0	15 0	19 0	19 0	12 0	12 0	12 0	12 0	12 0	12 0	10 0	10 0	24 0	24 0	8 0	8 0	20 0	20 0	21 0	21 0	12 0	12 0	100 0	10 0	10 0	10 0
<i>North-western—</i>																										
Sialkot . . . . .	20 0	19 0	32 0	32 0	11 0	11 0	26 0	26 0	26 0	26 0	22 0	22 0	1 0	1 0	20 0	26 0	26 0	26 0	26 0	26 0	13 0	13 0	160 0	13 0	13 0	13 0
Gujranwala . . . . .	21 0	20 0	34 0	34 0	10 0	10 0	22 0	22 0	22 0	22 0	16 0	16 0	1 0	1 0	16 0	26 0	26 0	26 0	26 0	26 0	13 0	13 0	85 0	13 0	13 0	13 0
Guwat . . . . .	21 0	21 0	34 0	34 0	9 0	9 0	25 0	25 0	25 0	25 0	21 0	21 0	1 0	1 0	12 0	26 0	26 0	26 0	26 0	26 0	13 0	13 0	120 0	14 0	14 0	14 0
Jhelum . . . . .	20 0	20 0	32 0	32 0	9 0	9 0	23 0	23 0	23 0	23 0	20 0	20 0	1 0	1 0	12 0	26 0	26 0	26 0	26 0	26 0	20 0	20 0	140 0	14 0	14 0	14 0
Rawalpindi . . . . .	17 0	17 0	32 0	32 0	11 0	11 0	24 0	24 0	24 0	24 0	20 0	20 0	1 0	1 0	20 0	26 0	26 0	26 0	26 0	26 0	20 0	20 0	100 0	13 8	13 8	13 8
Haridwar . . . . .	17 0	17 0	32 0	32 0	11 0	11 0	24 0	24 0	24 0	24 0	20 0	20 0	1 0	1 0	20 0	26 0	26 0	26 0	26 0	26 0	20 0	20 0	100 0	11 0	11 0	11 0
Peshawar . . . . .	18 0	18 0	44 0	44 0	10 0	10 0	25 0	25 0	25 0	25 0	14 0	14 0	1 0	1 0	18 0	26 0	26 0	26 0	26 0	26 0	22 0	22 0	100 0	39 0	39 0	39 0
Kohat . . . . .	16 0	16 0	42 0	42 0	12 0	12 0	16 0	16 0	16 0	16 0	15 0	15 0	1 0	1 0	16 0	26 0	26 0	26 0	26 0	26 0	22 0	22 0	138 0	34 0	34 0	34 0
<i>Western—</i>																										
Shahpur . . . . .	23 0	22 0	40 0	40 0	10 0	10 0	34 0	34 0	34 0	34 0	29 0	29 0	20 0	20 0	20 0	26 0	26 0	26 0	26 0	26 0	10 0	10 0	240 0	13 0	13 0	13 0
Jhang . . . . .	22 0	24 0	31 0	31 0	10 0	10 0	24 0	24 0	24 0	24 0	16 0	16 0	20 0	20 0	20 0	26 0	26 0	26 0	26 0	26 0	10 0	10 0	240 0	12 0	12 0	12 0
Moolan . . . . .	17 0	17 0	35 0	35 0	10 0	10 0	24 0	24 0	24 0	24 0	19 0	19 0	8 0	8 0	24 0	26 0	26 0	26 0	26 0	26 0	13 0	13 0	100 0	13 0	13 0	13 0
Pattani . . . . .	21 0	18 0	37 0	37 0	11 0	11 0	25 0	25 0	25 0	25 0	20 0	20 0	1 0	1 0	24 0	26 0	26 0	26 0	26 0	26 0	13 0	13 0	60 0	40 0	40 0	40 0
D. I. Khan . . . . .	20 0	19 0	37 0	37 0	13 0	13 0	25 0	25 0	25 0	25 0	20 0	20 0	1 0	1 0	24 0	26 0	26 0	26 0	26 0	26 0	11 0	11 0	110 0	44 0	44 0	44 0
Muzaffargarh . . . . .	20 0	20 0	26 0	26 0	9 0	9 0	25 0	25 0	25 0	25 0	20 0	20 0	1 0	1 0	24 0	26 0	26 0	26 0	26 0	26 0	11 0	11 0	100 0	27 0	27 0	27 0
D. G. Khan . . . . .	19 0	17 0	28 0	28 0	9 0	9 0	25 0	25 0	25 0	25 0	20 0	20 0	1 0	1 0	24 0	26 0	26 0	26 0	26 0	26 0	11 0	11 0	125 0	27 0	27 0	27 0
<b>Sind and Baluchistan—</b>																										
Karachi . . . . .	12 0	11 8	17 0	17 0	8 0	8 0	16 0	16 0	16 0	16 0	13 0	13 0	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	90 0	14 0	14 0	14 0
Hyderabad (Gidu Bandar) . . . . .	12 8	12 8	18 0	18 0	7 0	7 0	18 0	18 0	18 0	18 0	15 0	15 0	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	160 0	11 0	11 0	11 0
Thar and Parkar (Umar Kot) . . . . .	13 0	13 0	19 0	19 0	8 0	8 0	19 0	19 0	19 0	19 0	17 0	17 0	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	160 0	12 0	12 0	12 0
Sukkur . . . . .	17 8	16 0	19 8	19 8	8 0	8 0	19 8	19 8	19 8	19 8	17 8	17 8	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	160 0	12 8	12 8	12 8
Shikarpur . . . . .	12 8	12 0	19 8	19 8	8 0	8 0	19 8	19 8	19 8	19 8	17 8	17 8	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	160 0	11 8	11 8	11 8
Upper Sind Frontier . . . . .	13 0	13 8	20 0	20 0	10 0	10 0	22 0	22 0	22 0	22 0	20 0	20 0	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	160 0	11 0	11 0	11 0
Quetta . . . . .	13 1	13 10	14 12	14 12	7 12	7 12	15 8	15 8	15 8	15 8	13 0	13 0	1 0	1 0	16 0	26 0	26 0	26 0	14 0	14 0	6 0	6 0	70 64	9 0	9 0	9 0





## RETAIL PRICES FOR THE 2nd HALF OF APRIL, 1889—continued.

QUANTITIES PER RUPEE IN SERS OF 80 TOLAS.

DISTRICTS.	WHEAT.		BARLEY.		RICE, BEST SORT.		RICE, COMMON.		JOWAR OR CHOLAM ( <i>Sorghum vulgare</i> ).		BAJRA OR CUMBU ( <i>Pennisetum polystachyon</i> ).		MARUA OR RAGI ( <i>Eleusine coracana</i> ).		KANGNI OR KAKUR, ITALIAN MILLET ( <i>Setaria italica</i> ).		GRAM, CHENNA, CHOLA, KADALAY OR SUNAGA ( <i>Cicer arctinum</i> ).		MAIZE ( <i>Zea Mays</i> ).		ARHAR OR THÉR CADIAN PEA ( <i>Cajanus indicus</i> ).		FIREWOOD.		SALT.	
	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past	Present	Past
<b>Madras—</b>																										
<b>Malabar Coast—</b>																										
Malabar . . . . .	8 10	8 10	...	...	11 13	11 13	12 10	12 10	...	...	...	...	20 6	20 6	...	...	...	...	...	...	...	...	136 2	136 2	11 11	11 11
S. Canara . . . . .	8 8	8 8	...	...	11 2	11 14	12 13	12 13	...	...	...	...	21 13	21 13	...	...	...	...	...	...	...	...	128 13	128 13	13 5	13 5
<b>South, central—</b>																										
Coimbatore . . . . .	12 5	12 5	...	...	12 10	12 10	13 10	13 10	21 11	21 11	23 13	23 13	26 3	26 3	...	...	...	...	...	...	...	...	133 10	133 10	11 11	11 11
Nilgiris . . . . .	9 14	9 14	...	...	10 6	9 10	11 3	10 6	19 5	20 0	16 13	15 6	21 10	20 3	...	...	...	...	...	...	...	...	161 13	161 13	10 2	10 2
Salem . . . . .	10 3	10 3	...	...	11 13	11 13	13 11	13 11	25 0	25 0	22 2	22 2	30 13	30 13	...	...	...	...	...	...	...	...	186 10	186 10	13 8	13 8
<b>Central—</b>																										
Bellary . . . . .	13 6	13 6	...	...	11 13	12 5	13 0	13 8	28 5	29 10	20 11	21 3	32 0	33 0	...	...	...	...	...	...	...	...	97 3	97 3	11 14	11 14
Anantapur . . . . .	11 8	11 8	...	...	13 14	13 6	16 3	14 0	31 6	31 6	25 6	25 6	32 0	32 0	...	...	...	...	...	...	...	...	194 6	194 6	11 5	11 5
Cuddapah . . . . .	11 13	11 13	...	...	11 2	10 11	13 11	14 2	21 5	22 2	20 0	20 0	28 8	30 0	...	...	...	...	...	...	...	...	140 0	140 0	12 10	12 10
Kurnool . . . . .	11 6	11 6	...	...	11 2	11 6	11 13	12 3	24 5	24 5	20 0	21 5	28 0	30 0	...	...	...	...	...	...	...	...	142 14	142 14	10 2	10 2
<b>East Coast, north—</b>																										
Ganjam . . . . .	9 8	10 5	...	...	10 0	10 0	11 8	10 6	...	...	...	...	18 8	20 2	...	...	...	...	...	...	...	...	264 6	264 6	12 0	12 0
Vizagapatnam . . . . .	12 0	12 0	...	...	9 0	9 0	10 3	10 3	20 8	20 8	19 13	19 13	18 3	18 3	...	...	...	...	...	...	...	...	116 10	116 10	11 11	11 11
Godavari . . . . .	11 11	11 11	...	...	13 6	13 6	14 8	14 8	24 0	25 0	21 2	21 2	22 13	22 13	...	...	...	...	...	...	...	...	243 0	243 0	12 0	12 0
<b>East Coast, central—</b>																										
Kistna . . . . .	10 6	10 6	...	...	12 10	13 2	13 3	13 13	22 2	21 2	...	...	23 13	23 13	...	...	...	...	...	...	...	...	170 2	170 2	13 3	13 3
Nellore . . . . .	9 14	9 14	...	...	11 6	11 14	12 8	13 0	23 0	23 0	21 13	21 13	26 6	26 6	...	...	...	...	...	...	...	...	93 5	93 5	11 11	11 11
<b>East Coast, south—</b>																										
Madras . . . . .	10 10	10 10	...	...	11 10	10 5	13 6	13 6	...	...	...	...	28 2	27 11	...	...	...	...	...	...	...	...	89 14	89 14	12 5	12 5
Chingleput . . . . .	9 6	9 6	...	...	13 8	13 8	15 2	15 2	...	...	21 2	21 2	26 0	26 0	...	...	...	...	...	...	...	...	122 8	122 8	11 14	11 14
N. Arcot . . . . .	7 13	7 13	...	...	12 3	12 3	13 3	13 10	...	...	23 2	23 2	34 3	34 3	...	...	...	...	...	...	...	...	194 6	194 6	11 5	11 5
S. Arcot . . . . .	8 2	8 2	...	...	14 8	14 14	14 14	15 13	...	...	23 14	23 14	26 6	26 6	...	...	...	...	...	...	...	...	209 0	209 0	11 11	11 11
Tanjore . . . . .	8 14	8 14	...	...	12 3	12 3	12 11	12 11	...	...	20 5	20 5	26 3	24 3	...	...	...	...	...	...	...	...	166 3	166 3	12 14	12 14
Trenchinopoly . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	143 6	143 6	12 3	12 3
<b>Southern—</b>																										
Tinnevely . . . . .	9 3	8 14	...	...	12 11	13 2	13 10	13 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53 5	53 5	14 13	14 13
Madura . . . . .	10 2	10 2	...	...	13 6	13 14	13 14	14 13	...	...	22 0	22 0	26 5	26 5	...	...	...	...	...	...	...	...	136 2	136 2	13 10	13 10
<b>Mysore—</b>																										
Mysore . . . . .	10 0	10 0	10 0	10 0	10 0	10 0	12 0	12 0	20 0	20 0	28 0	30 0	34 0	34 0	...	...	...	...	...	...	...	...	96 0	96 0	9 0	9 0
Bangalore . . . . .	10 8	10 8	11 0	11 0	9 0	9 8	10 8	10 8	23 0	23 0	...	...	41 0	41 0	...	...	...	...	...	...	...	...	96 0	96 0	9 4	9 4
Kolar . . . . .	...	...	10 0	10 0	10 0	10 0	12 0	13 0	24 0	26 0	...	...	48 0	48 0	...	...	...	...	...	...	...	...	150 0	150 0	8 0	8 0
Tumkur . . . . .	11 0	11 0	11 0	11 0	12 0	12 0	13 0	13 0	...	...	...	...	48 0	48 0	...	...	...	...	...	...	...	...	340 0	340 0	9 0	9 0
Hassan . . . . .	...	...	11 0	11 0	12 0	12 0	14 0	14 0	...	...	...	...	48 0	48 0	...	...	...	...	...	...	...	...	96 0	96 0	8 0	8 0
Kadur . . . . .	10 0	10 0	11 0	11 0	16 0	16 0	18 0	18 0	...	...	...	...	48 0	48 0	...	...	...	...	...	...	...	...	320 0	320 0	10 0	10 0
Shimoga . . . . .	12 10	12 10	...	...	12 10	12 10	13 10	13 10	33 10	33 10	...	...	42 0	42 0	...	...	...	...	...	...	...	...	480 0	480 0	8 6	8 6
Chitaldrug . . . . .	13 0	13 0	15 0	15 0	11 0	11 0	13 0	13 0	48 0	48 0	32 0	32 0	55 0	55 0	...	...	...	...	...	...	...	...	320 0	320 0	9 0	9 0
<b>Coorg—</b>																										
Coorg . . . . .	9 0	9 8	8 0	8 0	11 8	14 8	14 0	15 8	...	...	...	...	35 8	36 0	...	...	...	...	...	...	...	...	110 0	110 0	10 0	10 0
<b>Aden . . . . .</b>	8 0	8 0	...	...	6 3	6 3	8 0	8 0	10 3	10 3	9 4	9 4	...	...	...	...	...	...	...	...	...	...	65 5	65 5	32 0	32 0

Not sold.

DEPARTMENT OF FINANCE AND COMMERCE,  
(Statistical Branch).E. J. SINKINSON,  
Offg. Secretary to the Government of India.



GOVERNMENT OF INDIA.  
HOME DEPARTMENT.

EXAMINATIONS FOR THE SELECTION OF CANDIDATES FOR THE UPPER AND LOWER  
DIVISIONS OF THE GOVERNMENT CLERICAL SERVICE, TO BE HELD AT  
DIFFERENT TIMES INSTEAD OF SIMULTANEOUSLY.

No. <sup>14</sup>  
1023-36.

*Extract from the Proceedings of the Government of India in the Home  
Department (Public),—under date Simla, the 11th June, 1889.*

Read—

Home Department Notification No. 1817, dated the 3rd July, 1888, publishing revised rules for the regulation of appointments in the Secretariat Clerical Service of the Government of India and attached Offices.

RESOLUTION.

The Government of India has had under consideration the question whether the examinations for the Upper and Lower Divisions of candidates for admission to clerkships in the Government of India Secretariats and attached Offices should not be held at different times instead of simultaneously as has been done hitherto. Under the existing practice, a candidate who fails for the Upper Division is unable to present himself for examination for the Lower Division in the same year; and as it is possible that this arrangement may prevent candidates who would make specially efficient members of the Lower Division from competing at the examination for it, the Governor-General in Council is pleased to decide that in any future year in which examinations are held for both Divisions, they shall not be held simultaneously. Under the system as now modified the examination for the Upper Division will be held first, and after its results have been announced, the Lower Division examination will begin. Candidates who fail in the examination for the Upper Division will thus have an opportunity to present themselves at the examination for the Lower Division, provided they pay the fees prescribed by the rules for both examinations. When examinations for both Divisions are to take place in the same year, the date on which the examination for each Division is to be held will be duly notified.

ORDER.—Ordered, that a copy of this Resolution be forwarded to the Governments of Bengal, North-Western Provinces and Oudh, and the Punjab, and the Chief Commissioner, Central Provinces, for information;

that a copy be forwarded to the Secretary to the Board of Examiners, Calcutta, for information;

that a copy be communicated to all Departments\* of the Government of India for information; and

\* Except Foreign Department.

† Surgeon-General  
Sanitary Commissioner with the Government of India.  
Registrar of the Calcutta University.

that a copy be communicated to the Heads† of Offices under the Home Department for information.

Ordered also, that the Resolution be published in the Supplement to the *Gazette of India* for general information.

(True Extract.)

A. P. MACDONNELL,

Secretary to the Government of India.

GOVERNMENT OF INDIA.  
REVENUE AND AGRICULTURAL DEPARTMENT.

Circular No. <sup>37</sup><sub>29-3</sub> Exhibitions.

*Extract from the Proceedings of the Government of India, Revenue and Agricultural Department,—(Museums and Exhibitions), dated Simla, the 8th June, 1889.*

The following papers received from the Administrator of the Government of New Zealand relative to the New Zealand and South Seas Exhibition to be held at Dunedin in 1889-90, are published for general information:

NEW ZEALAND AND SOUTH SEAS EXHIBITION.

*Patrons:*

His Excellency Major-General Sir WILLIAM F. DRUMMOND JERVOIS, C.B., G.C.M.G., R.E., etc.

His Excellency the Right Honourable the EARL OF ONSLOW, G.C.M.G.

*President:*

JOHN ROBERTS, Esq.

*Vice Presidents:*

The Hon. Sir HARRY ALBERT ATKINSON, K.C.M.G., Premier of New Zealand.

Sir F. DILLON BELL, Agent-General for New Zealand.

Count DE JOUFFROY D'ABBANS, Consul-General of France, New Zealand.

The Hon. T. FERGUS, Minister of Justice and Defence, New Zealand.

The Hon. Sir W. FITZHERBERT, K.C.M.G., Speaker of the Legislative Council, New Zealand.

Sir GEORGE GREY, K.C.B.

The Hon. Sir JOHN HALL, K.C.M.G., M.H.R.

Sir JAMES HECTOR, K.C.M.G.

The Hon. R. OLIVER, M.L.C.

The Hon. Sir MAURICE O'RORKE, Speaker of the House of Representatives, New Zealand.

The Hon. W. H. REYNOLDS, M.L.C.

The Hon. Colonel SARGOOD, M.L.C., Victoria.

The Hon. Sir ROBERT STOUT, K.C.M.G.

The Hon. Sir JULIUS VOGEL, K.C.M.G., M.H.R.

His Honour Mr. JUSTICE WILLIAMS.

His Worship the Mayor of Dunedin (H. GOURLEY, Esq.)

*Executive Commissioner:*

R. E. N. TWOPENY, Esq.

*Commissioners:*

A. BARTLEMAN, Esq., J.P.

Rev. Dr. BELCHER.

GEO. BELL, Esq., J.P.

T. BROWN, Esq.

THOS. BRYDONE, Esq., J.P.

W. CARLTON, Esq.

J. H. COCK, Esq., Chairman, Wellington Chamber of Commerce.

Capt. COLBECK, President, Auckland Chamber of Commerce.

W. DAWSON, Esq.

D. DUNN, Esq., Mayor of Oamaru.

J. DUTHIE, Esq., J.P., Mayor of Wellington.

H. S. FISH, Esq., J.P., M.H.R.

Hon. G. FISHER, Minister of Education.

T. FLEMING, Esq., Mayor of Invercargill.

W. GOW, Esq.

B. HALLENSTEIN, Esq., J.P.

T. M. HOCKEN, Esq., M.D.

M. JOEL, Esq.

A. KAYE, Esq., President, Canterbury Chamber of Commerce.

A. LEE SMITH, Esq.

C. LOUISSON, Esq., Mayor of Christchurch.

M. J. MAUDE, Esq., Mayor of Hokitika.

J. MILLS, Esq., M.H.R.

J. H. MORRISON, Esq., J.P.

V. PYKE, Esq., M.H.R.

G. W. RIELY, Esq., Mayor of Blenheim.

A. H. ROSS, Esq., M.H.R.

D. M. ROSS, Esq., Mayor of Timaru.

J. B. ROY, Esq., Mayor of New Plymouth.

JOHN SHARPE, Esq., Mayor of Nelson.

G. H. SWAN, Esq., Mayor of Napier.

J. WHITE, Esq.

*Treasurer:*

A. BARTLEMAN, Esq.

*Secretary:*

D. HARRIS HASTINGS.

OFFICIAL PROGRAMME.

It is intended to celebrate the Fiftieth Anniversary of the Foundation of the Colony of New Zealand, by holding in the City of Dunedin an Exhibition of arts, industries, resources, and manners of New Zealand, Australia, and the other Countries and Colonies in the Southern Pacific.

The principal objects of this Exhibition are to practically illustrate the development of the resources of New Zealand during the first half century of her existence, in comparison

with the progress made by other Colonies, British and Foreign; to stimulate industry and promote Intercolonial commerce; to strengthen the natural ties which connect all the Countries in the South Pacific Ocean, and to call attention to their position and potentialities.

The recent improvement in the commercial condition of New Zealand, and the prospect of prosperity immediately before her, offers special opportunities for the development of industry and the extension of Intercolonial commerce; whilst many considerations point to the desirability of bringing the importance of the South Sea Islands into notice, and cultivating a closer acquaintance with their peoples.

The Exhibition is held by, and at the risk of a number of New Zealand colonists, who have subscribed a Guarantee Fund for the purpose, after the model of those upon which the Great Exhibition of 1851, the London International Exhibition of 1862, and the Adelaide Jubilee Exhibition of 1887 were carried out.

The Government of New Zealand have recognised this Exhibition as the Official Celebration of the Jubilee of the Colony, and issued invitations to the Governments of Australia and the other Colonies and Islands in the Southern Pacific to be officially represented thereat. They have further undertaken to assist the Exhibition by erecting the main building, which will contain the picture galleries, and themselves exhibiting collections illustrating the fauna, flora, geology, and mineralogy of New Zealand, as well as objects of historical interest. The Government will also with the assistance of the native chiefs, organise a representation of Maori life and customs.

The Commissioners invite exhibits of all kinds from all Colonies, British and Foreign, wheresoever situated, as well as from Islands under British rule in the South Pacific. They are also desirous of obtaining Works of Art, Educational, Scientific, and Machinery Exhibits from other countries; but ordinary Industrial Exhibits from Europe and America can only be admitted under special conditions. Inducements will be offered for the exhibition of processes of manufacture.

With the consent and support of the other chief cities of New Zealand, the Exhibition will be held in Dunedin, which is the centre of the railway system of the southern and most populous island of the Colony. A suitable site has been obtained in the heart of the town, close to the railway station and intercolonial wharves. A line of railway will deliver exhibits into the grounds.

The Exhibition will be open to the public on Tuesday, 26th November, 1889, and close about the middle of April, 1890. It will be open in the evening as well as the day time.

The Government will issue customs regulations for the free admission of Intercolonial and Foreign Exhibits, similar to those in force at Melbourne and other Intercolonial Exhibitions, and similar railway privileges will be allowed for exhibits. The reproduction of exhibits will be prohibited by law.

#### CONDITIONS AND REGULATIONS.

1. Governments intending to take part in this Exhibition are requested to intimate the same as soon as possible. Applications for space for exhibits from Colonies officially represented must be made through the Commissioners of the Colonies to which the applicant belongs. Applications from countries and colonies not officially represented should be addressed directly to the Secretary at Dunedin.

2. Applications for space, with full particulars, are invited as early as possible, and in the allotment of space precedence will be given, as far as possible, to priority of application. No application will be received later than the 1st of July, 1889. Forms of application and all information can be obtained from the Secretary.

3. The ordinary charge for space will be £1 1s. for the first ten square feet or any less space, and a shilling for every additional square foot. Sculpture and paintings approved by the Fine Arts Committee will be admitted free, as well as educational and scientific exhibits shown by Government departments, and exhibits in Classes 34 and 35. Machinery and bulky exhibits will be shown in special annexes, in which space will be charged for at the reduced rate of £1 1s. for the first 20 feet, and sixpence for every additional foot. Wall space will be charged at the same rate as machinery. All applications must be accompanied by payment of the full amount of the space required. Special arrangements can be made for the exhibition of articles in the grounds.

4. The Exhibition will be ready for the reception of exhibits on October 1, 1889, and space not occupied by November 1, 1889, will revert to the Commissioners for reassignment. The Executive Commissioner shall at any time have power to reserve or reduce space which, in his opinion, is not fully occupied or misused.

5. The Executive Commissioner may issue at his discretion weekly licenses for the sale of articles manufactured in the Exhibition, but no other exhibit will be allowed to be taken out of the buildings until the close of the Exhibition; and any exhibitor selling goods for immediate delivery renders himself liable to the forfeiture of his space and all rights as an exhibitor.

6. The Exhibition building will be constituted a bonded store, but exhibits sold will be subject to duty.

7. The introduction of dangerous substances is strictly prohibited.

8. Packages intended for the Exhibition must be painted or labelled with the following device as a distinctive mark N.Z.E. together with the name of the exhibitor and country or colony in which court the exhibit will be shown.

9. Customs entries, transportation, receiving, and arranging articles for exhibition must be undertaken by the exhibitor at his own expense, but no charge will be made for the carriage of goods intended for exhibition on the railway lines. New Zealand and Island exhibits will be carried free on the Union S.S. Company's boats, and Australian exhibits the double journey at single freight.

10. The protection of invention capable of being patented and of designs is secured by the patent law of New Zealand. No exhibit may be drawn, copied or reproduced in any manner whatsoever without the joint consent of the exhibitor and the Executive Commissioner. The Commissioners, however, reserve to themselves the right of authorising the production of general views.

11. If exhibits are not intended for competition, notice must be given in the application for space.

12. An official catalogue will be published in English by the Commissioners, by whom the sale of catalogues is reserved. Anything beyond the ordinary description of the exhibit, together with the name of the exhibitor, must be paid for as an advertisement.

13. The representatives of countries and colonies will be allowed to group their exhibits as they may think fit in that portion of the Exhibition buildings allotted to them, subject always to the approval of the Executive Commissioner.

14. Motive power will be supplied to exhibits of processes of manufacture free of charge on application to the Executive Commissioner; but the right is reserved of reducing the amount asked for, or to make a charge for certain portions of the motive power supplied at discretion. The Commissioners desire to encourage the display of machinery in motion, and of all descriptions of manufactures in progress. Requests for motive power must be made to the Secretary prior to 1st July, 1889.

15. All shafting, pulleys, belting, machines, &c., for the transmission of power from the main shafting, must be provided by and at the cost of the Exhibitor.

16. Judges will be appointed by the Commissioners, acting mainly upon the recommendation of the exhibitors themselves. Certificates of first, second, and third order of merit will be awarded.

17. The removal of exhibits from the Exhibition buildings and grounds must be completed within one month from the close of the Exhibition. Goods remaining after that period will be removed by order of the Executive Commissioner, at the risk of exhibitors and sold by auction or otherwise disposed of at his direction, and the net proceeds handed to the exhibitors or their duly appointed agents.

18. Every person who becomes an exhibitor thereby acknowledges and undertakes to observe the rules and regulations established from time to time for the government of the Exhibition.

19. The Commissioners reserve the right to alter, explain, or add to these regulations at any time, whatever may be deemed necessary.

20. Precaution will be taken to preserve exhibits from injury and to guard the buildings, but no responsibility will be taken for damage or loss from whatever cause. Exhibitors will make their own arrangements for effecting insurances.

Form of applications for space and all further information can be obtained from

D. HARRIS HASTINGS, *Secretary*.

#### CLASSIFICATION OF EXHIBITS.

CLASS 1.—Geological and Mineralogical Collections.

- 2.—Mining and Metallurgical Machinery and Appliances.
- 3.—Chemical Manufactures.
- 4.—Glassware, Pottery, etc.
- 5.—Household Furniture, Brushware, etc.
- 6.—Heating and Lighting Apparatus.
- 7.—Textile Fabrics.
- 8.—Ready-made Clothing, etc.
- 9.—Printing, Stationery, etc.
- 10.—Armament, Native Weapons, etc.
- 11.—Surgical and Pharmaceutical Appliances.
- 12.—Hardware.
- 13.—Carriages, Horse furniture, etc.
- 14.—Educational Appliances.
- 15.—Scientific Instruments.
- 16.—Musical Instruments.
- 17.—Sanitary and Athletic Appliances.
- 18.—Works of Art.
- 19.—Photographs.

CLASS 20.—Machinery for Wood and Metal Working, etc.

- 21.—Sewing, Knitting, Printing Machines.
- 22.—Heavy Machinery, Castings, Ship Models, etc.
- 23.—Forestry Products.
- 24.—Agricultural Products.
- 25.—Wines, Spirits, Beers, Cordials, Aerated Waters, and Cooperage.
- 26.—Animal Food Products.
- 27.—Boots, Shoes, Saddlery, Leather, etc.
- 28.—Wood and Fibres.
- 29.—Stuffed Animals, Insects, Bee-keeping Appliances.
- 30.—Traps for Game, and Fishing Tackle.
- 31.—Agricultural Machinery and Implements.
- 32.—Flowers, Fruit Models, Garden Appliances.
- 33.—Silversmiths' Work.
- 34.—Artisan's Individual Work.
- 35.—Women's Work.

Circular No.  $\frac{37}{29-3}$  Ex.

ORDER.—Ordered, that the foregoing papers be published in the Supplement to the *Gazette of India* for general information, and that copies be forwarded to the

• Madras.  
Bombay.  
Bengal.  
North-Western Pro-  
vinces and Oudh.  
Punjab.

Central Provinces.  
Burma.  
Assam.  
Coorg.  
Hyderabad.  
Ajmere and Merwara.

Local Governments and Administrations noted on the margin,\* with a request that the prospectus may be published in the Local Gazette, and that such steps may be taken to make it known among merchants

and manufacturers as may be considered desirable.

(True Extract.)

E. C. BUCK,

*Secretary to the Government of India.*



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Final Memorandum on the Snowfall of the Cold Weather, 1888-89, in Northern India.

Three snowfall reports have come to hand since the preparation of the preliminary note on the cold weather snowfall in the mountain districts bordering Northern India and the abnormal features of the weather in India during the period January to May, 1889, published in last week's gazette.

The Deputy Commissioner of Kangra has sent the following statement of the reported depth of snow on the higher passes in the Kulu and Plach districts at the end of April. The reported depths at the same date of the two previous years are also given for comparison :

District.	Name of Pass.	Height.	Reported depth of snow, April 30th, 1889.	Reported depth of snow, April 30th, 1888.	Reported depth of snow, April 30th, 1887.
Kulu	Rotang	13,500	15½ feet	4 feet	7 feet
	Hamtu	14,500	13 "	3 "	8 "
	Chandarkhani	...	7 "	5 "	...
	Barsai	...	1½ "	1 foot	...
	Pushtari	...	1 foot	Nil	...
	Bubu	10,000	2 feet	4 feet	4 feet
	Lori Achri	...	3 "	3 "	...
	Majang	...	Nil	Nil	...
	Baragarh	...	1 foot	2 feet	...
	Jalori	1,000	1 "	Nil	½ foot
Plach	Raghopur	...	1 "	Nil	...
	Namu	...	Nil	Nil	...
	Chul	...	1 foot	1 foot	...
	Basleo	10,500	2 feet	1 "	1 foot
	Maghin	...	2 "	1 "	...
	Dindku	...	2 "	3½ feet	...
	Srikand	15,000	55 "	14 "	17 feet
	Gargarasan	17,000	2 "	7 "	13 "
	Supakhun	...	1 foot	5 "	...
	Tirath	...	11 feet	7 "	...
	Lambisigran	...	1 foot	Nil	...
	Palbach	...	?	2 feet	...

The Assistant Commissioner also states that there was heavy rain on the 10th in these districts, and that snow fell on Sahraj down to 10,000 feet, and in Upper Kulu as low down as 7,000 feet. Slight showers were frequent during the last week or ten days of the month, but on the whole the snow steadily decreased in depth on the higher hills although the quantity still lying is above the normal. The Rotang pass has been open to foot passengers and the Bubu to mules throughout the month. Snow is still lying on the shady sides of the Jalori and Basleo passes, but the Jalori was it is stated crossed by mules towards the end of the month.

The Reverend F. Redslob describes the weather in Ladakh during the month of May as follows: "After very unusual heat during April, May has been for the most part cloudy. Snow fell on two occasions, and rain on the 18th. It has also been occasionally frosty at nights, but the weather is now (May 21st) clearing up and is of the usual character."

The Deputy Commissioner of the Rawalpindi district writes to the effect that no snow fell on the hills adjacent to Kahuta during the month of May.

It will be seen that this additional information confirms the conclusions given in the preliminary note. Hence it may be accepted:

*1st.*—That the snowfall of the past winter occurred chiefly during the months of December to February, and that the snowfall since that period has not been large in amount. There has been apparently no abnormally heavy snowfall in any part of the Himalayas during the past three months.

*2nd.*—In the Afghan Highlands the snowfall was not only less in amount than usual, but was melted with greater rapidity than usual in consequence of the occurrence of heavy rain afterwards.

*3rd.*—The distribution of snowfall in the North-West Himalayas appears to have been very variable. Apparently larger amounts than usual fell on the outer ranges. In the lower elevations of the outer ranges the snowfall was followed by heavy rain which assisted to melt it, and hence the depth of snow is practically no greater in the lower passes of Kulu, &c., than it was last year. The case is different with the higher elevations above 13,000 or 14,000 feet, where the snowfall was unusually heavy, and was not followed by rain. There is hence an unusual accumulation of snow in the higher passes and elevations of Kulu, Plach, and Lahoul. As this extra depth of snow probably only occurs over the area of perpetual snow, it is almost certain that it will have little direct influence on the weather conditions of Northern India. There has on the other hand been less snow than usual in Cashmere and Ladakh. The information of the snowfall in the Gurhwal Himalayas is very limited, but so far as can be judged from the accounts it was not excessive.

*4th.*—In the Eastern Himalayas the snowfall is, so far as can be judged by the reports of the hillmen, less than it was last year and is probably somewhat below the average.

Experience has shown that it is chiefly abnormally heavy snowfall in the hot weather months of March, April, and May which is influential in modifying the pressure conditions to such an extent as to either retard the monsoon current or deflect it from Upper India into Central or North-Eastern India. The snowfall reports are hence favourable. There has been no heavy unseasonable snowfall during the hot weather months, nor was there during the winter any excessive accumulation of snow on the lower elevations. Hence it may be accepted that the conditions in the mountain districts of Northern India are favourable to an early and steady monsoon.

**Abnormal pressure and other weather conditions in India.**—These were fully stated for the first four months of the year in the preliminary note. The whole period presents several remarkable features. Amongst the most striking were the excessive rainfall over the whole of Northern India from the Punjab to Behar in the month of February, and the abnormally high temperature and excessive dryness of the air which has prevailed during the months of April and May over the greater part of the country and more especially in the North Deccan, the Central Provinces, Central India, the North-Western Provinces, Behar and Rajputana.

Experience shows that the hot weather is on the whole most influential in modifying the pressure anomalies. The chief feature during the past two years has been excessive pressure in the Deccan, more especially along the eastern base of the West Ghâts. This abnormal feature which has exercised a very powerful influence on the rainfall during the past two years has fortunately disappeared.

The following gives the more important pressure anomalies of the month of May:

(1) Pressure was relatively to the general state in defect over the greater part of the Peninsula and in Burma; Assam, Bengal, Behar, and the northern half of the North-Western Provinces. The deficiency was not large in amount in

the Peninsula or Burmah. It was excessive in Behar and Central Bengal as is shown by the following statement which gives the anomalies:

Burdwan	—'038"
Berhampore	—'046
Dhubri	—'038
Purneah	—'042
Durbhanga	—'044
Patna	—'038

(2) Pressure was relatively in excess in North-Western India including the Punjab, Sind, and Rajputana, but the anomalies are only large in the Punjab, *e.g.*—

Peshawar	+ '043"
Dera Ismail Khan	+ '031
Multan	+ '039
Lahore	+ '029
Sirsa	+ '028

Experience shows that when the monsoon current invades India it tends to drift more strongly towards areas of deficient pressure and to be diverted from areas of higher pressure than usual, and that any such modification at the commencement of the monsoon tends to become permanent throughout the season.

Assuming this principle and the principle underlying the snowfall theory, the following are the chief inferences respecting the probable character of the south-west monsoon of the present year:

*1st.*—The weather conditions in May over the land area of India and the character of the cold weather snowfall are both favourable to the probable occurrence of an early and strong monsoon this year. The commencement of the monsoon appears however to depend to a greater extent upon conditions in the south of the Bay and Arabian Sea than upon those of the land area of India, and hence this probability as based on known conditions is not large (not more than three to two).

*2nd.*—Conditions are unusually favourable to a good monsoon and probably heavier rain than usual over the whole of North-Eastern India, including Burmah, Assam, Bengal, Behar, and the greater part of the North-Western Provinces. It is difficult to estimate the effect of the pressure conditions in Behar, as they were much less plainly marked during the second-half of the month than during the first-half, and are hence to some extent temporary in character. The tendency of a persistent low pressure area in Behar during the monsoon would be to give increased rainfall over that area and the districts to the east, south and south-west, that is, over Behar, the greater part of Bengal, Chutia Nagpur, and the Central Provinces, and to diminish the rainfall to the west in the North-Western Provinces. Hence there is a strong probability of Behar, Bengal, and the Central Provinces receiving normal to abundant rain, and of Burmah and the North-Western Provinces receiving normal rainfall.

(3) The conditions in the Peninsula are on the whole favourable, and hence it is probable that the Bombay monsoon current will be at least of normal strength and give normal rainfall over the Peninsula generally.

(4) The conditions in Upper India and more especially the Punjab are more or less unfavourable. The rainfall of the Punjab depends to a somewhat larger extent on the strength of the Bombay current than on that of the Bay of Bengal. The rainfall in the Punjab and Rajputana will hence be probably less than the normal. The deficiency will depend largely on the effect of the Behar low pressure area in diminishing the effect of the Bay of Bengal current in Upper India. If that

be a temporary and not a permanent feature of the present monsoon, the deficiency will probably not be marked. On the other hand, if it be permanent, and also deflect the Bombay monsoon current more directly across the Peninsula than usual, the deficiency will probably be large and be relatively greatest in the central and western districts of the Province.

- (5) The observations from the observatories in Ganjam and the Northern Circars are unfortunately slightly discrepant and hence somewhat doubtful. So far however as can be judged from these observations, it is on the whole probable that those districts will receive normal rainfall during the present season.

It may be added that the year which approximates most closely in its weather conditions to the present year is 1879. It was characterized by excessive heat in April and May, and the pressure anomalies were very similar. The monsoon rainfall of that year was in excess in all provinces except the Punjab and Rajputana.

JOHN ELIOT,

*Meteorological Reporter to the  
Government of India*

SIMLA, 13th June, 1889.

E. C. BUCK,

*Secretary to the Government of India.*

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weather Review of India for the week ending 8 a.m. on  
Monday, June 10th, 1889.**

The past week has been chiefly remarkable for the passage of a large and important cyclonic storm along the Bombay Coast, and for the establishment, whether permanently or not it is difficult to say, of monsoon conditions over a large part of India.

The Chart of the 4th showed that the storm on the West Coast, the first indications of which were noticed last week, was a large and important cyclone. The barometer had fallen about 0.075" at the West Coast stations, and the centre of the storm apparently lay outside the Coast between Goa and Ratnagiri. At the latter station the barometer read nearly  $\frac{1}{8}$  of an inch below the normal height, and a south-easterly strong wind was blowing. On the following day the centre of the storm lay off the Port of Bombay, and the barometer had again fallen there. An east-south-east gale was blowing at Ratnagiri and a strong south-east wind at Bombay. The Chart of the 6th June showed that the storm had apparently been caught within the angle formed by the North Konkan and Kattiawar Coasts and had developed there. The barometer had fallen nearly one-tenth of an inch at Bombay, and the reading was nearly  $\frac{1}{4}$  inch below the normal. A strong east-south-east gale was blowing there and fresh gales all around the storm area. On this day pressure was also falling over the Bay, and a disturbance seemed to be forming there. On the 7th the West Coast storm was passing west-north-westward out into the Arabian Sea, and the barometer was rising briskly on the West Coast, though the wind there still blew with the force of a gale. The depression over the Bay proved to have been very slight. By the morning of the 8th the storm had passed out of the region of the Chart, and the barometer had risen moderately to quickly over Sind, Kattiawar, and the Konkan. On this and on the preceding day there had occurred a brisk barometric decrease over the Punjab. The Chart of the 9th showed that a small depression was forming off the Orissa and Ganjam Coasts and that elsewhere the distribution was fairly normal. On the following day the Chart showed that the depression off the Orissa Coast had increased considerably in size, though not in intensity, and had moved north-westward towards the Central Provinces and Behar. A strong southerly wind prevailed on its eastern side, and this wind drawing into east over Bengal passed up the Gangetic plain and joined the circulation existing around the low pressure area over the Indus Valley. At the same time, the monsoon current from the West Coast blew over the Central parts of India and of the Peninsula and north-eastward across Guzerat into Rajputana, &c. There was thus established a set of conditions such as ordinarily accompanies a general fall of rain, and the Chart of the 10th showed that, with the exception of one or two regions, rain was falling throughout the country.

*Temperature.*—The excessive temperatures which prevailed during the previous week continued during the week under review. Maxima varying between 110° and 118° prevailed throughout the week over the Upper Gangetic plain, Sind, Guzerat, Rajputana, and the Central Provinces, and on the 5th a reading of 120° was recorded at Jacobabad. On the 9th and morning of the 10th a rapid fall of temperature occurred, coinciding with the change to damper or rainy conditions noticed in the preceding paragraph.

The following table shows the excess or defect of the mean average temperature of the different Provinces from the normal, both for the present and for the preceding week :

PROVINCES.	Difference of Mean Temperature of last week from normal.	Difference of Mean Temperature of present week from normal.
Burma	+ 3.6°	+ 3.4°
Bengal	+ 3.3°	+ 1.0°
North-Western Provinces	+ 2.8°	+ 3.9°
Punjab	+ 2.0°	+ 5.1°
Bombay	+ 2.0°	— 0.3°
Central Provinces and Berar	+ 4.0°	+ 4.4°
Guzerat and Central India	+ 5.0°	+ 3.1°
Sind and Rajputana	+ 3.7°	+ 3.9°
Madras	+ 1.2°	+ 1.2°



This table shows that, except in Bombay, where the heavy rainfall occasioned a brisk decrease of temperature, the excess of last week has been maintained, and in Upper India and the Central Provinces has increased.

*Rain.*—The rainfall over India during the week has been attributable to three sources. There has been, firstly, the heavy daily rainfall which has occurred on the West Coast, due to the northerly progress of the cyclone noticed above; secondly, there has been the steady but generally moderate rain which has fallen over Bengal in connection with the small depressions which have formed off the Orissa and Ganjam Coasts; and thirdly, there has been the general burst of rain which occurred, with the establishment of monsoon conditions, at the close of the week.

On the 4th heavy rain was reported from the West Coast from Cochin to Goa, moderate rain in Assam, slight rain in Lower Burma and Lower Bengal, and a few drops at Ranikhet and Mussoorie. On the 5th heavy rain continued on the West Coast and had extended as far north as Ratnagiri, and slight rain was reported from Burma and Assam. The reports of the 6th showed that heavy rain continued in the West and had spread to Bombay. Heavy showers had fallen at Dacca and Jessore, and slight rain in Assam and Burma. On the 7th there was little change, except that the West Coast rainfall had extended inland over the Central parts of the Peninsula. Slight rain continued in Burma and Bengal. Similar conditions prevailed on the 8th. On the 9th the fall on the West Coast had become light, but rain had extended to the Central Provinces and the East coast of the Peninsula. On the morning of the 10th rain was general. Of the fifty-one rainfall divisions, one gives no returns, three report no rain, twenty-one an excess of rain, and the remainder a deficiency of rain for the week. The greatest excess is reported from the West Coast, but relatively to the average there was considerable excess in Assam, the North-Western Provinces, and the northern parts of Madras. The greatest absolute deficiency is in Burma, but relatively to the average the greatest defect is over Upper and North-Western India.

In Burma all divisions exhibit a deficiency. In Bengal, except the Delta, Orissa, and Chota Nagpur, the rainfall has been heavy. The same is true of the North-Western Provinces, except the Western division. In the south of the Punjab there was a trifling excess, and in other parts of the Province a more or less considerable deficiency. All along the West Coast and inland over Coorg and the Bombay Deccan the rainfall was heavier than the average, and Guzerat to a limited extent shared in this excess; but in Khandeish, all over the Central parts of the country, and the east of the Peninsula, except the north of Madras, the rainfall was short.

The column giving the state of the seasonal rainfall shows that more or less considerable deficiency prevails in Burma, East Bengal, Deltaic Bengal, Chota Nagpur, the west of the North-Western Provinces, the Central and Hill districts of the Punjab, Mysore, Khandeish, the Central parts of the country, Sind, and the Madras Presidency. A more or less considerable excess in Assam, the North-Western Provinces and Oudh, the south of the Punjab, the Konkan, Guzerat, and Kattiawar. Elsewhere the rainfall up to date is fairly normal.

The returns of maximum and minimum are comparatively uninteresting, except in the case of the West Coast. There were no large falls in Burma or Bengal, and even at Cherrapunji the total amount during the week was only 15 inches. In Oudh and the North-Western Provinces there were some falls of between 2 and 3 inches, but these were the largest amounts in Upper India. In Malabar very different conditions prevailed. At one station in Calicut 26 inches and at one in South Kanara 30 inches were collected, while Kumpta in North Kanara received 39 inches. In this district the average rainfall throughout was 34 inches for the week. In the Deccan two places record amounts exceeding 10 inches. Heavy falls were however entirely confined to the West Coast districts, and in the remainder of the divisions there are no falls of any magnitude, though the occurrence of 1 inch of rain at Surada in the Ganjam district is not unimportant in face of the scarcity at present existing there.

Province.	Division.	RAINFALL DATA FOR WEEK ENDING JUNE 10TH, 1889.			RAINFALL DATA FROM MAY 13TH TO JUNE 10TH, 1889.		
		Average Actual Rainfall of Division.	Average Nor- mal Rainfall of Division.	Excess or Defect, in Inches.	Average Actual Rainfall of Season to date.	Average Nor- mal Rainfall, May 13th to June 10th.	Excess or De- fect of (Season- al) Rainfall, expressed as a per- centage.
		Inches.	Inches.	Inches.	Inches.	Inches.	Per cent.
BURMAH	Tenasserim . . . .	2'64	8'23	-5'59	17'30	26'28	-34
	Lower Burmah . . . .	2'28	4'23	-1'95	5'40	14'35	-62
	Central Burmah . . . .	1'54	3'41	-1'87	5'15	11'02	-53
	Upper Burmah . . . .	3'52	?	?	5'70	?	?
	Arakan . . . .	5'68	8'65	-2'97	8'67	25'61	-66
BENGAL AND ASSAM	Eastern Bengal . . . .	4'56	4'40	+0'16	8'93	11'50	-22
	Assam (Surma) . . . .	6'89	5'96	+1'02	23'81	18'46	+29
	Do. (Brahmaputra) . . . .	6'26	4'05	+2'19	15'66	11'75	+33
	Deltaic Bengal . . . .	1'96	2'39	-0'43	4'13	6'48	-36
	Central Bengal . . . .	2'19	1'88	+0'31	4'81	5'42	-11
	North Bengal . . . .	6'66	5'05	+1'61	12'82	13'13	-2
	Orissa . . . .	0'69	1'14	-0'45	3'44	3'68	-7
	Chota Nagpur . . . .	0'68	1'05	-0'37	1'93	2'94	-34
	Behar (South) . . . .	0'83	0'42	+0'41	1'70	1'59	+7
	Do. (North) . . . .	1'04	0'89	+0'15	2'23	2'64	-16
NORTH - WESTERN PROVINCES AND ODDH.	North - Western Provinces (East). . . .	0'56	0'25	+0'31	1'48	0'66	+124
	Oudh (South) . . . .	1'52	0'30	+1'22	2'05	0'75	+173
	Do. (North) . . . .	0'79	0'51	+0'28	1'68	1'33	+26
	North - Western Provinces (Central). . . .	0'87	0'45	+0'42	1'16	0'82	+41
	North - Western Provinces (West). . . .	0'50	0'51	-0'01	0'78	1'06	-26
	North - Western Provinces (Submontane). . . .	0'82	0'64	+0'18	1'38	1'52	-9
PUNJAB	Punjab (South) . . . .	0'52	0'42	+0'10	1'56	0'85	+84
	Do. (Central) . . . .	0'09	0'34	-0'25	0'60	0'81	-26
	Do. (Submontane) . . . .	0'16	0'42	-0'26	0'95	1'00	-5
	Do. (Hill Districts) . . . .	0'07	1'42	-1'35	1'67	4'32	-61
	Do. (North-West) . . . .	0	0'43	-0'43	1'17	1'30	-10
	Do. (West) . . . .	■	0'19	-0'19	0'56	0'59	-5
BOMBAY AND MALA- BAR COAST DIS- TRICTS (MADRAS).	Malabar . . . .	15'73	8'95	+6'78	23'65	21'66	+9
	Madras (South Central) . . . .	1'18	0'88	+0'30	3'00	3'26	-8
	Coorg . . . .	10'06	6'65	+3'41	14'07	14'06	0
	Mysore . . . .	0'40	0'85	-0'45	1'60	3'59	-56
	Konkan . . . .	13'53	5'36	+8'17	15'68	8'77	+79
	Bombay Deccan . . . .	2'16	1'57	+0'59	4'00	3'88	+3
	Hyderabad (North) . . . .	■	■	■	■	■	■
	Khandeish . . . .	0'63	1'33	-0'70	1'10	2'73	-60
CENTRAL PROVINCES AND BERAR.	Berar . . . .	0'40	0'92	-0'53	0'90	1'73	-48
	Central Provinces (West) . . . .	0'48	1'21	-0'73	0'59	2'16	-73
	Ditto (Central) . . . .	0'62	1'10	-0'48	0'75	2'03	-63
	Ditto (East) . . . .	0'50	1'68	-1'18	0'99	2'93	-66
BOMBAY (NORTH)	Guzerat . . . .	0'74	0'65	+0'09	2'56	1'17	+119
	Kattiawar . . . .	0'24	0'61	-0'37	1'22	0'95	+28
	Sind . . . .	0	0'04	-0'04	0'05	0'14	-64
RAJPUTANA AND CEN- TRAL INDIA.	Central India (East) . . . .	0'47	0'71	-0'24	1'18	1'37	-14
	Rajputana (East), India (West). . . .	0'74	0'53	+0'21	1'56	1'20	+30
	Rajputana (West) . . . .	0'10	0'18	-0'08	0'44	0'68	-35
MADRAS	East Coast (North) . . . .	1'61	0'66	+0'95	3'11	3'34	-7
	Hyderabad (South) . . . .	0'07	0'84	-0'77	0'39	1'97	-80
	Madras (Central) . . . .	0'46	1'16	-0'70	1'29	3'05	-58
	East Coast (Central) . . . .	0'49	0'68	-0'19	0'94	2'00	-53
	Ditto (South) . . . .	0'32	0'38	-0'06	1'48	2'18	-32
	Madras (South) . . . .	0'02	0'36	-0'34	0'89	1'72	-49

W. L. DALLAS,

SIMLA, 13th June, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weekly Report on the State of the Season and Prospects of the Crops.**

**Madras.**—*For week ending 8th June.*—No rain in Madura and Tinnevely; good rain on the West Coast and Nilgiris; fair in Ganjam, Vizagapatam, Kurnool, Chingleput, South Arcot; slight elsewhere. Crops generally good, but withering in parts of Cuddapah, South Arcot, and Salem; suffering from want of rain in parts of Vizagapatam, North Arcot, and Coimbatore. Indigo blighted in Cuddapah. Water-supply scarce in Ganjam, insufficient in parts of Vizagapatam, Nellore, Anantapur, Chingleput, and North Arcot. Stock suffering very badly, chiefly from rinderpest, in Malabar, Tanjore, and Anantapur, and badly in Kistna, South Arcot, and Trichinopoly. Prices falling in Bellary, stationary in seven districts, and rising in all others. Prices of all grains have risen in Ganjam. 1,020 deaths from cholera in Ganjam. Labourers employed on last day of week—on Rushikulya works, 5,681; Gopalpore Canal, 5,199; Ghat Roads, 1,426. Average daily number on drinking-water tanks and wells, 4,363. On minor irrigation and other works, 2,439. General prospects favourable, except in Ganjam.

**Bombay.**—*For week ending 12th June.*—Rain in Guzerat, Konkan, Deccan, Southern Mahratta Country, and Hyderabad. Preparations for *kharif* crops in progress generally. Probable *rabi* outturn in Shikarpur thirteen annas. Damage done to crops by crickets in Upper Sind Frontier.

**Bengal.**—*For week ending 11th June.*—General rain during the week—heaviest in the Northern and North-Eastern districts. Agricultural prospects have consequently improved, and ploughing and sowing are generally in progress. More rain is however still required in parts of Western and Central Bengal and Behar, Chota Nagpur, and Orissa generally. The early rice and jute seedlings are coming up well; and the condition of sugarcane, indigo, and other standing crops is fair. In Rungpur and Bogra the early rice is said to have suffered considerably from drought, and will be a short crop. Prices of foodgrains are high and almost steady in the affected districts of Durbhunga, Muzaffarpur, and Chumpan. Common rice is quoted at 13½ seers, 12 seers, and 11 seers per rupee respectively. Distress continues in the Contai subdivision of the Midnapur district.

**North-Western Provinces and Oudh.**—*For week ending 12th June.*—Good rain has fallen in all districts but Rae Bareilly, Allahabad, Banda, Farukhabad, Agra, and Jhansi, where the heat is intense. Sugarcane and other summer crops being irrigated. Markets fairly supplied. Prices show an upward tendency in some districts. Health of cattle good.

**Punjab.**—*For week ending 12th June.*—Moderate rain in several districts. Prices stationary throughout the Province, except in Peshawar, where they are unsettled. Threshing operations nearly over. Ploughings for and sowing of *kharif* still in progress. Standing *kharif* crops are in good condition. Outturn is reported good from Rawalpindi. Stock-cattle are reported healthy. Pasturage or fodder sufficient throughout the Province.

**Central Provinces.**—*For week ending 12th June.*—Weather cloudy, with slight showers; a good fall of rain in Nimar. Land being ploughed and manured. Rice being sown in Bilaspur and Sambalpur. Scarcity of water continues.

**Burma.**—*For week ending 8th June.*—Heavy rain fell in several districts in Upper Burma. The rainfall generally is seasonable. Ploughing and transplanting are progressing. Cattle-disease is severe in Pegu, Toungoo, and

Bhamo. Fluctuations in the price of paddy are but slight, but at Henzada prices have risen 10 per cent. in the last fortnight, and during the week under report 9 per cent. at Mergui and 11 per cent. at Sagaing. The food-supply is sufficient.

**Assam.**—*For week ending 12th June.*—Weather seasonable. Rainfall general. Transplanting of late rice continues. Prospects of potatoes in Khasi hills fair. Tea and other crops doing well.

**Mysore and Coorg.**—*For week ending 12th June.*—Rainfall good in the Shimoga and Kadur districts; elsewhere slight. Standing crops good. More rain wanted in parts of Bangalore, Kolar, and Tumkur districts; otherwise prospects generally favourable. Paddy and sugarcane harvested in parts. No material change in prices.

Very good and general rain in Coorg. Standing crop in good condition. Fevers prevalent.

**Berar and Hyderabad.**—*For week ending 12th June.*—Weather hot in Berar. A little rain during the week. Preparations for the *kharif* crops completed in some districts. Agricultural stock in good condition. Fodder and water insufficient. Marked change in the price of foodgrains.

Slight rain during the week in Hyderabad. Reaping of hot-weather crops concluded. Preparations for *kharif* sowings commenced. Scarcity of fodder and water still felt. Prices stationary.

**Central India.**—*For week ending 12th June.*—Slight rain throughout Central India during the week—heaviest fall at Sirdarpur. Fair also in Western Malwa. Sowings commenced in Western Malwa and many parts of Bhopawar. Prices of foodgrains slightly risen in Dhar, and steady and high in Bhopal.

**Rajputana.**—*For week ending 12th June.*—Rainfall in most States. Agricultural operations commenced. Agricultural stock poor in Meywar and Bikanir. Pasturage or fodder insufficient in Marwar, Kherwara, and Meywar. Prices rising in Meywar, Kotah, and Bhrtupore.

**Nepal.**—*For week ending 6th June.*—Good rain fell during the week. Weather hot. Prospects improved in the Valley.

E. C. BUCK,

*Secretary to the Government of India.*





*Printed and published for the GOVERNMENT OF INDIA at the GOVERNMENT CENTRAL PRESS, Simla.*



SUPPLEMENT TO  
**The Gazette of India.**

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No. 25.} CALCUTTA, SATURDAY, JUNE 22, 1889.

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**OFFICIAL PAPERS.**

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

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*No Official Orders or Notifications, the Publication of which in the GAZETTE OF INDIA is required by Law, or which it has been customary to publish in the CALCUTTA GAZETTE, will be included in the SUPPLEMENT. For such Orders and Notifications the body of the GAZETTE must be looked to.*

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GOVERNMENT OF INDIA.  
DEPARTMENT OF FINANCE AND COMMERCE.

*Comparative Statement of the Net Indian Sea and Land Customs Revenue (excluding Salt Revenue) for the first two months of the official year 1889-90, and of the  
eighteen preceding years.  
(IN THOUSANDS OF RUPEES.)*

FOR THE TWO MONTHS, APRIL AND MAY.																									
YEAR.	BOMBAY.				SINDH.				MADRAS.				BURMA.				TOTAL BRITISH INDIA.					YEAR.			
	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	On Exports.	Total Revenue.	On Imports of Liquors.	On other Imports.	Total Import Revenue.	Export Revenue.	Total Revenue.				
1871-72	1,66	11,62	3,51	16,79	1,46	4,93	88	7,27	18	15	24	57	2,06	2,88	5,51	25	73	6,01	6,99	4,12	19,49	23,61	13,32	37,13	1871-72
1872-73	2,17	9,94	4,21	16,32	91	7,09	98	8,98	18	16	72	1,06	2,19	2,23	5,08	67	87	8,22	9,76	4,59	20,25	24,84	16,36	41,20	1872-73
1873-74	1,57	9,48	2,67	13,72	98	5,94	86	7,78	15	9	22	46	2,11	2,71	5,60	62	80	9,04	10,46	4,10	18,42	22,52	15,50	38,02	1873-74
1874-75	1,64	10,45	2,21	14,30	1,16	5,08	88	7,12	22	8	22	52	2,39	2,08	5,03	74	1,10	6,95	8,79	4,32	19,10	23,42	12,34	35,76	1874-75
1875-76	1,67	12,73	2,95	17,35	1,23	6,50	2,31	10,04	18	20	54	92	2,33	2,79	5,75	79	71	11,94	13,44	4,50	22,47	26,97	20,53	47,50	1875-76
1876-77	2,28	10,33	1,73	14,34	1,41	6,75	38	8,54	23	9	7	39	2,13	1,31	4,39	97	92	8,50	10,39	5,84	20,22	26,06	11,99	38,05	1876-77
1877-78	2,61	12,61	2,20	17,42	1,89	8,17	43	10,49	45	15	12	72	1,41	34	2,67	98	1,08	7,14	9,20	6,85	23,42	30,27	10,23	40,50	1877-78
1878-79	2,31	12,38	1,98	16,67	1,55	7,80	49	9,84	39	9	8	56	1,85	82	3,69	1,45	1,21	7,94	10,60	6,72	23,33	30,05	11,31	41,36	1878-79
1879-80	1,75	11,13	1,37	14,25	1,75	6,38	55	8,68	46	11	7	64	1,38	73	2,96	1,31	94	9,82	12,07	6,12	19,94	26,06	12,54	38,60	1879-80
1880-81	2,26	8,39	1,02	11,67	1,68	7,60	44	9,72	88	16	7	1,11	1,67	1,68	4,30	85	1,29	9,10	11,24	6,62	19,11	25,73	12,31	38,04	1880-81
1881-82	2,52	9,27	1,97	13,76	1,89	7,56	51	9,96	84	22	10	1,16	1,64	1,55	3,94	1,30	1,30	11,24	13,84	7,30	19,99	27,29	15,37	42,66	1881-82
1882-83	2,55	4	2,26	4,85	2,07	—36*	45	2,16	62	2	16	80	...	67	1,53	1,80	1	13,64	15,45	7,90	—29*	7,61	17,18	24,79	1882-83
1883-84	2,51	...	3,09	5,60	1,99	12	29	2,40	74	...	12	86	...	1,00	1,84	1,80	4	13,49	15,18	7,73	16	7,89	17,99	25,88	1883-84
1884-85	2,17	7	1,59	3,83	2,01	11	43	2,55	89	2	13	1,04	3	1,42	2,34	1,51	3	9,27	10,81	7,47	26	7,73	12,84	20,57	1884-85
1885-86	2,16	3	2,05	4,24	2,03	12	23	2,38	82	...	19	1,01	1	38	1,31	1,16	2	11,15	12,33	7,09	18	7,27	14,00	21,27	1885-86
1886-87	2,20	3	2,00	4,23	2,00	12	35	2,47	73	2	25	1,00	1	86	2,01	1,64	—2*	10,79	12,41	7,71	16	7,87	14,25	22,12	1886-87
1887-88	1,96	7	2,19	4,22	2,73	10	42	3,25	98	2	19	1,19	...	86	2,36	2,27	...	11,51	13,78	9,44	19	9,63	15,17	24,80	1887-88
1888-89	2,39	64	2,97	6,00	2,72	1,11	45	4,28	91	17	16	1,24	15	75	2,56	1,77	17	6,91	8,85	9,45	2,24	11,69	11,24	22,93	1888-89
1889-90	2,27	1,15	2,24	5,66	2,97	95	53	4,45	1,08	20	20	1,48	...	1,02	2,70	1,48	54	11,39	13,41	9,48	2,84	12,32	15,38	27,70	1889-90

\* The amount refunded is greater than the duty collected.

DEPARTMENT OF FINANCE AND COMMERCE,  
STATISTICAL BRANCH;  
Calcutta, 17th June, 1889.

E. J. SINKINSON,  
Offr. Secretary to the Government of India.

GOVERNMENT OF INDIA.  
HOME DEPARTMENT.

MODE OF SUBMISSION OF MEMORIALS ADDRESSED TO PARLIAMENT.

No.  $\frac{16}{1098-1114}$ .

*Extract from the Proceedings of the Government of India in the Home Department (Public),—under date Simla, the 20th June, 1889.*

Read—

Despatch from the Right Honourable the Secretary of State for India, No. 13 (Political), dated 14th March 1889.

RESOLUTION.

A case having recently occurred in which a memorial addressed to the House of Commons was withheld under Rule XII., clause 3, of the Rules for the submission of Memorials to Her Majesty the Queen, Empress of India, or to the Right Honourable the Secretary of State for India, His Lordship, while expressing the opinion that memorials addressed to Parliament cannot be withheld under the rules above referred to which do not properly apply to such Memorials, has decided that if a petition against the orders of the Secretary of State for India in Council is prepared for presentation to Parliament, it should be submitted to the House of Parliament to which it is addressed through the medium of some unofficial Member of the House, and not through the Secretary of State.

ORDER.—Ordered, that copy, with copy of extracts from the Journals and Standing Orders of Parliament enclosed in the Despatch from the Secretary of State read in the preamble, be forwarded to Local Governments and Administrations for information ;

that a copy, with copy of extracts, be forwarded to the several Departments of the Government of India for information ; and

that the Resolution and extracts be published in the Supplement to the *Gazette of India* for general information.

(True Extract.)

A. P. MACDONNELL,

*Secretary to the Government of India.*

## HOUSE OF COMMONS.

## PUBLIC PETITIONS.

Every Member presenting a Petition to the House must affix his name at the beginning thereof. (*Vide Commons' Journals*, 1833, March 20; 1883, February 19.)

Every Petition must be written and not printed or lithographed. (*Vide Commons' Journals*, 1793, May 6; 1817, March 12.)

Every Petition must contain a prayer. (*Vide Commons' Journals*, 1843, July 10.)

Every Petition must be signed by at least one person on the skin or sheet on which the Petition is written. (*Vide Commons' Journals*, 1817, March 12.)

Every person signing a Petition must write his address after his signature or his signature will not be counted. (*Vide Appointment of the Select Committee on Public Petitions*, 1879, February 18.)

Every Petition must be written in the English language, or be accompanied by a translation certified by the Member who shall present it. (*Vide Commons' Journals*, 1821, March 16; March 21.)

Every Petition must be signed by the parties whose names are appended thereto by their names or marks, and by no one else except in case of incapacity by sickness. (*Vide Commons' Journals*, 1675, November 8; 1689, November 14; 1774, June 2; 1826, December 13; 1836, June 28.)

No letters, affidavits, or other documents, may be attached to any Petition. (*Vide Commons' Journal*, 1826, February 20; November 28; 1856, March 14.)

No erasures or interlineations may be made in any Petition. (*Vide Commons' Journals*, 1827, March 2; 1831, August 12.)

No reference may be made to any Debate in Parliament. (*Vide Commons' Journals*, 1822, March 28.)

No application may be made for any grant of public money, except with the consent of the Crown. (*Vide Standing Orders*.)

No application may be made for a charge upon the revenues of India, except with the consent of the Crown. (*Vide Standing Orders*.)

All Petitions, after they have been ordered to lie upon the Table, are referred to the Committee on Public Petitions, without any question being put; but if any such Petition relate to any matter or subject with respect to which the Member presenting it has given notice of a Motion, and the said Petition has not been ordered to be printed by the Committee, such Member may, after notice given, move that such Petition be printed with the Votes. (*Vide Standing Orders*.)

A Member cannot present a Petition from himself. It is quite competent to any honourable Member to petition the House, but then his Petition ought to be presented by another Member. (*Vide Rules, Orders, and Forms of Proceeding of the House of Commons*.)

MEM.—Every Petition offered to be presented to the House should be addressed "To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled."



## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weather Review of India for the week ending 8 a.m. on  
Monday, June 17th, 1889.**

The weather of the past week has been much quieter than during the week preceding. No storms of any magnitude have been developed, and the general conditions over the greater part of the country have been such as normally accompany a fairly general incursion of monsoon winds and well distributed rainfall. The Bombay branch of the monsoon current has been far stronger than that from the Bay of Bengal, and hence the rainfall over the Peninsula has been more general and heavier than that over the Gangetic plain. In the latter region there has been comparatively little rainfall, the major part of the monsoon current from the Bay feeding into slight shallow depressions which formed over Lower Bengal and produced the slight but continuous precipitation which characterised that region.

The chart of the 11th showed conditions similar in many respects to those which prevailed at the close of the preceding week. A large but shallow depression, with its centre off the Circars and Orissa coasts, overlay Bengal, the east of the North-West and Central Provinces, and the Circars; a second depression was shown in the Indus Valley, while the highest pressures were reported from Malabar, Ceylon, and the south of the Bay. The winds were normal in direction. A strong westerly wind blew across the West Coast and over the Peninsula; in the Bay of Bengal it drew into south-westerly, and in Burmah and Lower Bengal into south-easterly, while in North Bengal and up the Gangetic plain it was easterly to south-easterly. In North-Western India there existed a partial circulation around the Indus Valley low pressure. On the 12th the principal changes consisted of alterations in the positions of the two areas of low readings. The centre of depression which on the 11th lay off the Orissa and Circars Coasts had passed northward into Lower Bengal, while the Indus Valley depression had passed southward and concentrated in Lower Sind. The winds were very little changed, except that the south-easterly winds from the Bay were interrupted over the North-Western Provinces and no longer penetrated into Upper India. On the 13th the only change of importance was the slight intensifying and northerly movement of the Bengal depression. The general distribution was unaltered, readings being high in the extreme south and relatively low in the Indus Valley and in Bengal. The chart of the 14th showed that the small depression over Bengal had more or less broken up, but that that over Sind had intensified. Gradients were consequently very steep over Sind, and all over that region very strong winds were blowing. The Bombay monsoon current on this day was everywhere exceptionally strong. On the 15th there was very little change in the distribution of pressure. The winds were also very little changed, the Bombay monsoon blowing with abnormal strength, while the Bengal current was weak and irregular. On the 16th there was a marked tendency to the formation of an area of depression and cyclonic circulation in Bengal, but no other change of importance. The chart of the 17th showed that a depression was steadily forming over Bengal, so that while the Bombay monsoon continued strong there was very little passage of air from the Bay into Upper India.

*Temperature.*—The week on the whole has been a cool one. The rainfall of the earlier days of the week effected a large decrease of temperature, and the showery weather which subsequently prevailed in Northern India prevented any very extensive recovery in that region, while the strong monsoon winds and more or less daily rain which occurred over the region affected by the Bombay current maintained low temperatures over the greater part of the remainder of India.

The coolest day on the whole was the 12th, when very low maxima for the season were experienced. At Patna and Gya on that day the maximum readings exhibited a deficiency of  $10\frac{1}{2}^{\circ}$ ; at Gorakhpur and Lucknow of  $17^{\circ}$ ; at Lahore of  $18^{\circ}$ ; at Bareilly of  $22^{\circ}$ ; and at Sirsa of  $26^{\circ}$ . From that day on to the close of the month the changes of temperature were somewhat irregular, but with a general tendency to rise.

The following table shows the excess or defect of the mean average temperatures of the different Provinces from the normal, both for the present and for the preceding week:

PROVINCE.	Difference of Mean Temperature of Last Week from Normal.	Difference of Mean Temperature of Present Week from Normal.
Burmah . . . . .	+ $3\cdot4^{\circ}$	+ $0\cdot1^{\circ}$
Bengal . . . . .	+ $1\cdot0^{\circ}$	— $1\cdot3^{\circ}$
North-Western Provinces . . . . .	+ $3\cdot9^{\circ}$	— $6\cdot8^{\circ}$
Punjab . . . . .	+ $5\cdot1^{\circ}$	— $3\cdot7^{\circ}$
Bombay . . . . .	— $0\cdot3^{\circ}$	+ $0\cdot2^{\circ}$
Central Provinces and Berar . . . . .	+ $4\cdot4^{\circ}$	— $2\cdot0^{\circ}$
Guzerat and Central India . . . . .	+ $3\cdot1^{\circ}$	— $3\cdot3^{\circ}$
Sind and Rajputana . . . . .	+ $3\cdot9^{\circ}$	— $2\cdot3^{\circ}$
Madras . . . . .	+ $1\cdot2^{\circ}$	+ $0\cdot5^{\circ}$

From this table it will be seen that relatively to the average there has been a large fall of temperature compared with the preceding week. The only Provinces where the excess of last week has been maintained are Burmah and Bengal. In Bombay the slight deficiency of last week has been changed into a slight excess, while in all other Provinces there has been a deficiency of temperature varying from nearly  $1\frac{1}{2}^{\circ}$  in Bengal to nearly  $7^{\circ}$  in the North-West Provinces. As mentioned above, the maxima have been abnormally low.

Rain has been fairly general throughout India during the week. Over a large part of the country it was of almost daily occurrence, but both in the east of the Peninsula and in the north-west of India it has been somewhat uncertain, rainy periods alternating with comparatively fine intervals.

The table at the end of this summary shows that of the 51 divisions into which India is divided, only one division, *vis.* Sind, received no rain; in 30 there was a greater or less excess, and in 19 the rainfall was more or less deficient. The greatest excess was in Burmah, where Tenasserim received  $10\frac{1}{2}$  inches and Arrakan 17 inches more than the normal. In other parts of the Indian region neither the excess nor the deficiency was relatively large. The maximum falls reported from Burmah were in some cases very large. Tavoy received 26 inches; Moulmein and Amherst, 17 inches; Bassein, 19 inches; Akyab, 36 inches; and Sandoway, 31 inches. Beyond Burmah there were no very heavy falls. Cherrapunji received 23 inches during the week, but this is not a large amount for this proverbially wet station. Falls of between 5 and 8 inches were common throughout Bengal, but advancing north-westward up the Gangetic plain the amounts rapidly decreased, and in the North-Western Provinces and Oudh, except in the submontane districts, falls of 5 inches were the exception. In the Punjab the maximum falls were generally between 1 and 2 inches.

In the West Coast districts, with the exception of Calicut and South Kanara, no heavy falls are reported. In the Central parts of the country good average rain has been received, but in Kattiawar and Sind there has been little or none. In Rajputana there has been heavy, and on the East Coast there has been general and in places fairly heavy rain.

The concluding column of the table shows the state of the seasonal rainfall.

Province.	Division.	RAINFALL DATA FOR WEEK ENDING JUNE 17TH, 1889.			RAINFALL DATA FROM MAY 13TH TO JUNE 17TH, 1889.		
		Average Actual Rainfall of Division.	Average Nor- mal Rainfall of Division.	Excess or Defect, in Inches.	Average Actual Rainfall of Season to date.	Average Normal Rainfall, May 13th to June 17th.	Excess or De- fect of (Season- al) Rainfall expressed as a per- centage.
		Inches.	Inches.	Inches.	Inches.	Inches.	Per cent.
BURMAH	Tenasserim	20'34	9'60	+ 10'74	37'64	35'88	+ 5
	Lower Burmah	7'53	4'50	+ 3'03	12'03	18'85	- 31
	Central Burmah	3'61	3'96	- 0'35	8'58	14'98	- 43
	Upper Burmah	5'28	?	?	11'93	?	?
	Arakan	29'63	12'30	+ 17'33	38'33	37'91	+ 1
BENGAL AND ASSAM	Eastern Bengal	6'76	5'78	+ 0'98	15'60	17'28	- 9
	Assam (Surma)	10'05	7'16	+ 2'89	33'86	25'63	+ 32
	Do. (Brahmaputra)	2'57	3'99	- 1'42	17'56	15'60	+ 13
	Deltaic Bengal	4'38	2'91	+ 1'47	8'52	9'38	- 9
	Central Bengal	4'27	2'93	+ 1'34	9'08	8'35	+ 9
	North Bengal	3'77	4'02	- 0'25	16'59	19'56	- 15
	Orissa	3'00	2'02	+ 0'98	6'44	5'69	+ 13
	Chota Nagpur	3'09	2'37	+ 0'72	4'84	5'31	- 9
	Behar (South)	1'36	1'77	- 0'41	3'05	3'35	- 9
	Do. (North)	3'51	2'04	+ 0'87	5'75	5'28	+ 9
NORTH - WESTERN PROVINCES AND ODDH.	North - Western Provinces (East).	1'27	1'09	+ 0'18	2'75	1'75	+ 57
	Oudh (South)	2'37	0'85	+ 1'52	4'13	1'60	+ 158
	Do. (North)	1'74	1'41	+ 0'33	3'73	2'74	+ 36
	North - Western Provinces (Central).	1'13	0'65	+ 0'48	2'29	1'47	+ 56
	North - Western Provinces (West).	0'52	0'55	- 0'03	1'30	1'61	- 19
	North - Western Provinces (Submontane).	2'23	1'28	+ 0'95	3'60	2'80	+ 29
PUNJAB	Punjab (South)	0'44	0'36	+ 0'08	2'00	1'21	+ 65
	Do. (Central)	0'30	0'48	- 0'18	0'91	1'28	- 29
	Do. (Submontane)	0'59	0'46	+ 0'13	1'54	1'46	+ 5
	Do. (Hill Districts)	1'91	1'72	+ 0'19	3'58	6'04	- 41
	Do. (North-West)	0'15	0'29	- 0'14	1'32	1'59	- 17
	Do. (West)	0'29	0'11	+ 0'18	0'86	0'83	+ 4
BOMBAY AND MALA- BAR COAST DIS- TRICTS (MADRAS).	Malabar	8'59	9'71	- 1'12	32'24	31'23	+ 3
	Madras (South Central)	0'09	0'62	+ 0'07	3'69	3'88	- 5
	Coorg	2'90	7'15	- 4'25	16'97	21'21	- 20
	Mysore	0'48	0'72	- 0'24	2'12	4'31	- 51
	Konkan	4'57	7'11	- 2'54	20'26	15'88	+ 28
	Bombay Deccan	1'00	1'25	- 0'25	5'00	5'13	- 3
	Hyderabad (North)	...	...	...	...	...	...
	Khandeish	1'20	1'47	- 0'27	2'30	4'20	- 45
CENTRAL PROVINCES AND BERAR.	Berar	1'24	1'84	- 0'60	2'15	3'57	- 40
	Central Provinces (West)	1'26	2'67	- 1'41	1'97	3'94	- 25
	Ditto (Central)	2'20	1'77	+ 0'43	2'82	3'80	- 26
	Ditto (East)	2'61	2'19	+ 0'42	3'61	5'11	- 29
BOMBAY (NORTH)	Guzerat	0'70	1'28	- 0'58	3'26	2'45	+ 33
	Kattiawar	0'03	0'73	- 0'70	0'64	1'68	- 62
	Sind	0	0'04	- 0'04	0'07	0'18	- 61
RAJPUTANA AND CEN- TRAL INDIA.	Central India (East)	1'54	1'19	+ 0'35	2'80	2'56	+ 9
	Rajputana (East), India (West).	1'32	0'67	+ 0'76	9'05	1'88	+ 381
	Rajputana (West)	1'75	0'21	+ 1'54	2'19	0'89	+ 146
MADRAS	East Coast (North)	0'88	0'79	+ 0'09	3'99	4'13	- 3
	Hyderabad (South)	1'44	0'88	+ 0'56	1'83	2'85	- 36
	Madras (Central)	1'09	0'68	+ 0'41	2'38	3'73	- 36
	East Coast (Central)	1'78	0'41	+ 1'37	2'72	2'41	+ 12
	Ditto (South)	0'89	0'34	+ 0'55	2'37	2'52	- 6
	Madras (South)	0'10	0'40	- 0'30	0'99	2'11	- 53

W. L. DALLAS,

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.

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SIMLA, 20th June, 1889.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and Prospects of the Crops.

**Madras.**—*For week ending 15th June.*—No rain in Tinnevely; slight in Madras, Tanjore, Trichinopoly, Madura, and Coimbatore; good elsewhere. About  $1\frac{1}{4}$  inches fell in Ganjam. Crops generally good, but withering in parts of Cuddapah and South Arcot; suffering from want of rain or water in parts of Vizagapatam, North Arcot, Trichinopoly, Tinnevely, Coimbatore, and Salem. Indigo blighted in Trichinopoly. Water-supply insufficient in Ganjam, parts of Vizagapatam, Nellore, Chingleput, North Arcot, Coimbatore, and Salem. Stock suffering badly, chiefly from rinderpest, in Malabar, Kistna, and Tanjore. Prices rising in eleven districts, falling in five, and stationary in others. Prices of all grains rose in Ganjam: 865 deaths from cholera in that district. Labourers employed last day of week:—Rushikulya works, 3,797; Gopalpur Canal, 2,968; Ghat Roads, 1,646. Average daily number on drinking-water tanks and wells, 4,779; on minor irrigation and other works, 2,623. General prospects favourable; beginning to improve in Ganjam.

**Bombay.**—*For week ending 19th June.*—Rain in Guzerat, Konkan, Deccan, Southern Mahratta Country, and Shikarpur; insufficient in parts of Karachi, Thana, Nasik, Poona, Sholapur, Dharwar, and Kathiawar. Sowing finished in Colaba; progressing in several districts, but retarded in five talukas of Poona for want of sufficient rain. Young crops doing well in Sholapur, Kanara, and Baroda. Transplantation commenced in Poona. Locusts appeared in Kandiaro taluka of Hyderabad, but no damage done.

**Bengal.**—*For week ending 18th June.*—The monsoon has now fairly set in, and the rainfall during the week has been general and in many districts considerable. More rain is however needed throughout the Patna Division. Agricultural prospects have improved generally. Ploughing and sowing are general, and the rice and jute where already sown are coming up well. Sugarcane, indigo, and other standing crops have been much benefited by the rain. Prices continue high and almost stationary.

**North-Western Provinces and Oudh.**—*For week ending 19th June.*—The weather has been unsettled during the week. The eastern districts generally report an average rainfall, the central only light showers, and the western ones little or none at all. Ploughing is in progress in all districts, and *kharif* sowings have commenced in most. Markets are fairly well stocked, and prices are almost stationary, three districts only, Allahabad, Farukhabad, and Moradabad, reporting an upward tendency. From Cawnpore a scarcity of fodder in one tahsil is reported.

**Punjab.**—*For week ending 19th June.*—Good rain in most districts. Prices rising in Sadr station Lahore, falling in Rawalpindi, unsettled in Peshawar, and stationary elsewhere. Threshing operations nearly completed. Ploughings for and sowing of *kharif* still in progress. Crops are reported to be in good condition in Amritsar. Cotton and sugarcane crops promise well. Outturn of *rabi* is average in Lahore. Cotton slightly damaged by hail in Chunian, and fruit by storm in Sharakpur, Lahore district. Stock cattle are reported healthy. Fodder sufficient throughout the province.

**Central Provinces.**—*For week ending 19th June.*—Rain general and sufficient. Land being prepared for autumn sowings, which have commenced in some districts under favourable conditions. Prices steady.

**Burma.**—*For week ending 15th June.*—The rainfall was heavy throughout Burma. Ploughing and sowing are progressing. Cattle-disease continues to be severe in Bhamo. The price of paddy has risen 25 per cent. in parts of Sando-way and 11 per cent. in Tavoy; elsewhere the fluctuations in prices are but slight. The food-supply is everywhere sufficient.

**Assam.**—*For week ending 19th June.*—Weather seasonable. Rainfall general. Ploughing for winter rice continues. Tea and other crops in general doing well.

**Mysore and Coorg.**—*For week ending 19th June.*—Good rain in Civil and Military Station; rainfall good in parts of Kadur and Shimoga districts, and insufficient in Bangalore and Kolar districts. Crops good. Agricultural operations progressing. Outturn of crops harvested generally favourable. Prices slightly fallen in Kadur district.

Heavy rain in Coorg. Prospects fair. Much sickness prevalent since wet-weather set in.

**Berar and Hyderabad.**—*For week ending 19th June.*—Rainfall fair in Berar. Weather warm and cloudy. Cotton sowing in progress. General condition of agricultural stock good. Fodder insufficient. Prices steady.

Good rain at Hyderabad. *Kharif* sowing in progress. Scarcity of fodder still felt. Prices stationary.

**Central India.**—*For week ending 19th June.*—Rain throughout Central India Agency during the week: heaviest fall in the Bhopawar Agency; slight in Gwalior, Western Malwa, and Goona. Prospects improved in Bhopal, Baghelkhand, and Bundelkhand. Sowing operations in progress in Neemuch, Western Malwa, Bhopawar, and Bhopal.

**Rajputana.**—*For week ending 19th June.*—Rainfall more or less throughout the Province. Agricultural operations progressing. Agricultural stock poor in Meywar and Bickaneer. Pasturage or fodder sufficient, except in Marwar, Kherwara, and Meywar. Prices rising in Meywar, Harowti, and Dholepore. Steady elsewhere.

**Nepal.**—*For week ending 13th June.*—Good rain. Weather cloudy. Late autumn rice is being transplanted in the valley. General prospects good.

E. C. BUCK,

*Secretary to the Government of India.*



GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. VIII of 1889-go.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Latest Return received.	RAILWAYS.	Total mean length open.	RECEIPTS FOR WEEK ENDING 26TH MAY, 1888.		Total mean length open.	RECEIPTS FOR WEEK ENDING 25TH MAY, 1889.		TOTAL RECEIPTS FROM 1ST APRIL TO 26TH MAY, 1888.		TOTAL RECEIPTS FROM 1ST APRIL TO 25TH MAY, 1889.		Total increase in 1889-go.	Total decrease in 1889-go.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		<i>Rs.</i>	<i>Rs.</i>		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
8th June, 1889	East Indian	1,514	9,36,307	619	1,514	9,72,280	642	78,82,880	651	77,30,788	638	...	1,52,092
8th ditto	Patna-Gya.	57	8,502	149	57	8,052	141	76,529	167	76,907	168	378	...
8th ditto	Dildarnagar-Ghazipur	12	1,469	122	12	1,010	84	11,181	117	8,127	85	...	...
1st ditto	Rajputana-Malwa	1,664	3,99,457	240	1,664	4,87,000	293	32,44,208	244	37,48,271	287	5,04,063	3,054
8th ditto	Bengal-Nagpur (a)	186	45,139	243	293	54,857	187	3,56,206	239	4,55,256	198	99,050	...
1st ditto	Southern Mahratta (b)	850	79,550	94	857	95,303	111	6,75,011	99	7,26,694	106	51,683	...
1st ditto	Do. Mysore Section	140	11,321	81	219	17,125	78	84,092	75	1,11,574	64	27,482	...
1st ditto	Indian Midland	211	(c) 24,112	114	588	(d) 70,703	120	(c) 1,92,804	114	(d) 5,51,769	119	3,58,965	...
1st ditto	Villupuram-Dharma- veram (Nellore Branch)	83	4,648	56	83	5,134	62	31,991	48	35,530	54	3,539	...
1st ditto	Bareilly-Pilibhit	36	1,863	52	36	2,871	80	14,436	50	19,387	67	4,951	...
	<b>TOTAL</b>	<b>4,753</b>	<b>15,12,368</b>	<b>318</b>	<b>5,323</b>	<b>17,14,455</b>	<b>322</b>	<b>1,25,69,338</b>	<b>331</b>	<b>1,34,64,393</b>	<b>322</b>	<b>8,94,965</b>	...
	<i>State Lines worked by Government.</i>												
8th June, 1889	North-Western (e)	2,411	4,60,007	191	2,386	5,19,649	218	38,61,942	200	42,67,961	228	4,06,019	...
1st ditto	Oudh and Rohilkhand	693	1,58,601	289	692	1,95,955	282	13,74,529	249	14,60,598	264	86,069	...
1st ditto	Bengal Central	125	11,516	92	125	13,340	107	91,942	92	1,06,074	106	14,132	...
1st ditto	Wardha Coal	45	15,465	344	45	10,795	371	1,31,443	305	1,53,743	435	22,300	...
1st ditto	Eastern Bengal Rail- ways	673	1,50,408	224	673	1,54,650	230	11,39,474	212	12,46,826	232	1,07,352	...
8th ditto	Nallhati	27	1,870	69	27	1,856	68	14,648	67	12,822	59	...	1,826
8th ditto	Tirhoot	259	38,814	150	273	39,459	145	3,19,000	154	3,12,690	143	...	6,370
1st ditto	Lucknow-Sitapur	105	5,843	56	105	8,344	79	45,493	54	57,832	69	12,429	...
1st ditto	Sihramau	31	4,415	46	25	927	37	7,394	30	8,358	35	964	...
1st ditto	Jorhat	...	...	...	...	(f) ...	...	(g) 460	9	(h) 338	6	...	...
18th May, 1889	Cherra-Companyganj	...	...	...	...	...	...	...	...	...	...	...	...
1st June, 1889	Burma	392	66,092	169	553	98,390	178	5,37,458	185	8,02,440	181	2,64,982	...
	<b>TOTAL</b>	<b>4,761</b>	<b>9,10,031</b>	<b>191</b>	<b>4,904</b>	<b>10,48,375</b>	<b>214</b>	<b>75,23,759</b>	<b>199</b>	<b>84,29,682</b>	<b>218</b>	<b>9,05,923</b>	...
	<i>Lines worked by Guaranteed Companies.</i>												
1st June, 1889	Madras	840	1,75,301	209	840	1,95,536	233	12,92,654	192	14,73,378	223	1,80,724	...
1st ditto	South Indian	654	1,19,667	183	654	1,21,033	185	8,66,624	166	9,19,045	179	52,421	...
8th ditto	Great Indian Penin- sula	1,504	(i) 12,09,275	804	1,447	(j) 8,45,589	584	(i) 95,62,346	795	(j) 74,78,997	658	...	20,83,340
1st ditto	Bombay, Baroda and Central India (k)	461	8,10,782	674	461	3,15,000	683	26,41,530	716	26,47,138	731	5,608	...
	<b>TOTAL</b>	<b>3,459</b>	<b>18,15,025</b>	<b>525</b>	<b>3,402</b>	<b>14,77,158</b>	<b>434</b>	<b>1,43,63,154</b>	<b>519</b>	<b>1,25,18,558</b>	<b>468</b>	...	18,44,560
<b>GRAND TOTAL (GUARANTEED AND STATE)</b>			<b>12,973</b>	<b>42,37,424</b>	<b>327</b>	<b>13,629</b>	<b>42,39,988</b>	<b>311</b>	<b>3,44,56,251</b>	<b>333</b>	<b>3,44,12,543</b>	<b>321</b>	<b>43,708</b>
<b>GROSS ESTIMATED EXPENSES</b>			...	...	...	...	...	<b>1,55,29,571</b>	<b>150</b>	<b>1,57,02,808</b>	<b>146</b>	<b>1,73,237</b>	...
<b>NET RECEIPTS</b>			...	...	...	...	...	<b>1,89,26,680</b>	<b>183</b>	<b>1,87,09,735</b>	<b>175</b>	...	<b>2,16,948</b>
	<i>Assisted Companies.</i>												
8th June, 1889	Tarakeswar	22	5,141	231	22	6,174	277	55,525	312	52,221	293	...	3,304
18th May, 1889	Dibru-Sadiya	...	...	...	...	(f) ...	...	(g) 57,413	105	(h) 60,667	122	9,254	...
8th June, 1889	Bengal and North- Western	376	66,085	176	376	60,270	160	4,69,166	156	4,77,413	162	8,247	...
1st ditto	Rohilkhand-Kumaun	67	5,804	87	67	7,974	119	61,156	114	67,935	127	6,779	...
	<b>TOTAL</b>	<b>465</b>	<b>77,030</b>	<b>166</b>	<b>465</b>	<b>74,418</b>	<b>160</b>	<b>6,43,260</b>	<b>148</b>	<b>6,64,236</b>	<b>155</b>	<b>20,070</b>	...
	<i>Native States.</i>												
1st June, 1889	His Highness the Ni- zam's Guaranteed	277	31,653	114	354	38,206	108	2,49,625	123	3,28,916	117	79,291	...
1st ditto	His Highness the Gaekwar's	59	3,050	52	59	2,240	38	30,941	66	25,182	54	...	5,759
1st ditto	His Highness the Gaek- war's Veranganj	21	1,037	49	27	1,050	39	10,075	60	9,936	47	...	139
1st ditto	Melasa-Vadnagar	193	23,637	122	260	35,050	135	2,23,531	145	3,01,599	148	78,068	...
1st ditto	Bhavnagar-Gondal	68	4,706	70	68	5,140	75	43,504	80	42,910	79	...	594
1st ditto	Morvi	124	8,361	67	124	7,000	56	64,264	65	59,063	61	...	5,201
1st ditto	Jodhpore	...	...	...	...	...	...	...	...	...	...	...	...
	<b>TOTAL</b>	<b>742</b>	<b>72,504</b>	<b>98</b>	<b>892</b>	<b>88,695</b>	<b>99</b>	<b>6,21,940</b>	<b>105</b>	<b>7,07,606</b>	<b>109</b>	<b>1,45,606</b>	...

- (a) Includes the Katni-Umaria Branch.  
(b) Includes the Bellary-Kistna State Railway.  
(c) Includes the Sindia State Railway.  
(d) Includes the Sindia and Bhopal-Itarsi State Railways.  
(e) Includes the Amritsar-Pathankot and Rajpura-Bhatinda State Railways.  
(f) Return not received.

- (g) Total receipts from 1st April to 19th May, 1888.  
(h) Total receipts from 1st April to 18th May, 1889.  
(i) Includes the Dhond-Manmad, Khangaon, Amraoti, and Bhopal-Itarsi State Railways.  
(j) Includes the Dhond-Manmad, Khangaon, and Amraoti State Railways.  
(k) Includes the Patni Branch.

M. C. BRACKENBURY, Major, R.E.,  
Officiating Deputy Secretary.

SIMLA, 20th June, 1889.



SUPPLEMENT TO  
**The Gazette of India.**

No. 26.} CALCUTTA, SATURDAY, JUNE 29, 1889.

**OFFICIAL PAPERS.**

*A SUPPLEMENT to the GAZETTE OF INDIA will be published from time to time, containing such Official Papers and information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. The Debates of the Legislative Council of His Excellency the Governor General will in future be published in PART VI of the GAZETTE.*

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on a payment of five Rupees per annum if delivered in Calcutta, or eight Rupees if sent by Post. The SUPPLEMENT and PART VI of the GAZETTE can also be subscribed for separately on a payment of Rupees six per annum if delivered in Calcutta or Rupees nine if sent by Post.*

*No Official Orders or Notifications, the Publication of which in the GAZETTE OF INDIA is required by Law, or which it has been customary to publish in the CALCUTTA GAZETTE, will be included in the SUPPLEMENT. For such Orders and Notifications the body of the GAZETTE must be looked to.*

GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

**GENERAL RULES FOR WORKING INDIAN RAILWAYS.**

No. 240 R. T., dated Simla, the 14th June, 1889.

RESOLUTION.—By the Government of India, Public Works Department.

Read again—

Section 8 of Act IV (the Indian Railway Act) of 1879.

Notification by the Government of India in the Foreign Department, No. 136-I.J., dated 10th June 1879.

Public Works Department Notification No. 299, dated 13th September 1880, publishing the General Rules for all Railways in India and Public Works Department Circular No. 17-R., dated 21st August 1880.

Public Works Department letter No. 1062-R.T., dated 20th October 1886.

Notifications by the Government of India in the Foreign Department, Nos. 1143, 1144, and 1145-I., dated the 22nd March 1888.

Read also—

Letter from the Government of Bombay, No. 1598, dated the 19th July 1887, and enclosures.

Notification by the Government of India in the Foreign Department, No. 2065-I., dated the 22nd May 1889.

OBSERVATIONS.—In accordance with the provisions of Section 8 of the Indian Railway Act, IV of 1879, as extended by the Notification of the Government of India in the Foreign Department, No. 136-I.J., dated 10th June 1879, to the Hyderabad Assigned Districts, in which are situated the Khamgaon and

Amraoti State Railways; and as extended by the Notifications of the Government of India in the Foreign Department, Nos. 1143-I., 1144-I. and 1145-I., dated 22nd March 1888 and 2065-I., dated 22nd May 1889, to the lands in the territory of His Highness the Nizam of Hyderabad occupied by the Dhond and Manmad State Railway; the Agent of the Great Indian Peninsula Railway Company has applied that the General Rules for Indian Railways, which have received the sanction of the Governor-General in Council and were published in the *Gazette of India*, dated 18th September 1880, may be applied to the Khamgaon, the Amraoti and the Dhond and Manmad State Railways which are worked by the Great Indian Peninsula Railway Company.

**RESOLUTION.**—With the exception of Section XVII, which refers to the working of a single line of railway, on the system termed in Rule 3 of the said Rules "Train Despatching," the Governor-General in Council is pleased, under section 8 of the said Act, as so extended, to sanction the application to the Khamgaon, the Amraoti, and the Dhond and Manmad State Railways, of the General Rules for Indian Railways as published in the *Gazette of India*, dated 18th September 1880.

**ORDER.**—Ordered that the General Rules, which have already been published in the *Gazette of India*, be further notified to the railway servants and the public by a copy thereof [with the exception noted] and of this Resolution being kept open to inspection free of any charge in the office of the Station Master of every station on the said Railways.

Ordered also, that this Resolution be communicated to the Secretary to the Government of Bombay, Public Works Department, for information and guidance, and that it be published in the *Gazette of India*.

R. C. B. PEMBERTON, *Colonel, R.E.*,  
*Secretary to the Government of India.*

*Documents accompanying.*

Nil.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## WEATHER SUMMARY FOR MAY 1889.

*General Weather conditions of the month.*—The chief feature of the month is the increase of temperature which proceeds more rapidly in Upper than in Central India. The hottest area during the early part of the month usually includes the Central Provinces, Central India, and the eastern districts of the North-Western Provinces. It is usually transferred to Rajputana and Sind in the third or fourth week of the month. The continued high temperature in Central and Upper India usually diminishes pressure rapidly during the month in those areas and establishes the baric gradients necessary for the extension of the south-east trades winds across the equator and their continuance northwards as the south-west monsoon winds into India.

Usually one or two feeble advances of these humid winds occur during May which give moderate rain to Ceylon, Malabar, and to Tenasserim. The great advance however does not usually take place until the end of May or the beginning of June. This forms what is known as the setting in of the south-west monsoon. Over the whole of Central and Northern India the weather is generally very hot and dry, but hot weather storms occasionally occur and sometimes give very heavy showers, more especially in Bengal and Assam, and in and near the hills in Behar and the North-West Provinces. In Bengal and Assam the amount of rain received from the local thunderstorms is sometimes very considerable, and the showery weather of May occasionally merges at the end of the month almost imperceptibly into the rain of the south-west monsoon.

*Temperature.*—The past month has been characterized by higher average temperature than usual in all districts except the Punjab and Assam.

The following give the mean temperature data for the various Provinces :

Provinces.	Mean Maximum Temperature May.	Variation from Normal.	Mean Minimum Temperature May.	Variation from Normal.	Mean Daily Temperature May.	Variation from Normal.
Burmah	97.4	+ 4.4	78.2	+ 2.6	87.8	+ 3.5
Bengal	98.9	+ 3.5	79.3	+ 2.7	89.1	+ 3.1
Assam	85.4	— 1.2	72.1	— 0.1	78.8	— 0.6
North-Western Provinces	105.8	+ 1.8	77.7	+ 0.1	91.8	+ 1.0
Punjab	100.6	— 1.6	72.2	— 0.5	86.4	— 1.1
Sind and Rajputana	104.1	+ 0.1	78.9	+ 1.5	91.5	+ 0.8
Central India	105.9	+ 0.8	76.6	— 0.3	91.3	+ 0.3
Central Provinces	107.5	+ 1.3	80.9	+ 0.9	94.2	+ 1.1
Bombay	96.2	+ 2.3	77.7	+ 1.0	87.0	+ 1.7
Madras	99.8	+ 0.8	80.3	+ 1.5	90.1	+ 1.2

This table shows that the excess of temperature was greatest for Burmah and Bengal.

Temperature was considerably above the average at the commencement of the month. The 3rd and 4th were very hot days in Bengal and Burmah, and at many stations the maximum day temperature was from  $8^{\circ}$  to  $12^{\circ}$  above the normal.

Dry hot weather with excessive temperature continued steadily until the 20th. The 10th and 11th were very hot days in North-East India. The mean maximum temperature averaged  $7^{\circ}$  above the normal in Bengal and the North-West Provinces,  $5^{\circ}$  in Burmah, and  $4^{\circ}$  in the Central Provinces. The hottest area at this time was the eastern districts of the Central Provinces and the adjacent districts of Bengal. The hottest area was transferred to the eastern districts of the North-West Provinces and Central India on the 18th and 19th, on which days very high temperatures were recorded at Allahabad and other stations in these areas. A very rapid reduction of temperature took place on the 22nd in consequence of showers over the greater part of Northern and Central India. In many cases the day temperature was reduced from  $20^{\circ}$  to  $30^{\circ}$ . Thus on the 23rd the maximum temperature was  $18^{\circ}$  below the normal at Sutna,  $15^{\circ}$  below it at Patna, and  $14^{\circ}$  at Allahabad. On the 25th it was  $22^{\circ}$  below it at Ludhiana,  $19^{\circ}$  at Sialkote, and  $15^{\circ}$  at Agra. This very cool period lasted until the 26th, during which occasional showers continued to be received. With the cessation of rain the temperature began to rise steadily, and at the end of the month was again considerably above the normal. The excess averaged  $7^{\circ}$  in the Central Provinces;  $5^{\circ}$  in Bengal, Central India, Sind, Guzerat, and Rajputana; and  $4^{\circ}$  in the North-West Provinces and the Punjab. During this period of increasing temperature the area of highest temperature was transferred to Sind.

The following gives the highest temperatures registered during the month at selected stations in Northern India and the highest temperature registered during the same month in the previous 14 years for comparison:

Stations.	Highest Maximum Temperature.	Date.	Highest Maximum Temperature in month of May since 1875.	Year.
Toungoo . . . . .	107.7	12th & 13th	106.5	1881
Thayetmyo . . . . .	109.7	9th & 17th	109.5	1881
Jessore . . . . .	114.3	11th	103.2	1885
Calcutta . . . . .	101.9	3rd & 5th	105.3	1879
Burdwan . . . . .	113.7	12th	110.7	1879 & 1885
Berhampore . . . . .	113.2	12th	113.0	1876
Purneah . . . . .	108.3	19th	109.7	1879
Patna . . . . .	113.7	11th	112.4	1884
Gya . . . . .	114.6	11th	116.0	1884
Benares . . . . .	114.3	11th	117.3	1884
Allahabad . . . . .	115.9	11th	117.2	1884
Jhansi . . . . .	114.5	8th to 10th & 19th.	117.5	1888
Akola . . . . .	113.5	19th & 31st	115.5	1881
Hoshangabad . . . . .	115.5	9th	115.6	1883 & 1888
Nagpur . . . . .	114.2	10th	117.7	1883



*Pressure.*—One of the most important effects of the prolonged heat of May is to intensify previously existing barometric or pressure anomalies and to develop new ones. The mean pressure of the month for the whole of India was '031" above the normal.

The following gives the pressure anomalies or the variations of the mean pressure in each district relative to the general condition of excessive pressure as stated above :

Province.	MEAN PRESSURE VARIATIONS.		
	May 1st to 15th.	May 16th to 31st.	May.
Burmah . . . . .	+ '015	— '019	— '002
Bengal . . . . .	— '036	— '001	— '019
Assam . . . . .	— '041	— '007	— '024
Behar and Chutia Nagpur . . . . .	— '052	— '002	— '027
North-West Provinces . . . . .	— '029	+ '012	— '009
Punjab . . . . .	+ '023	+ '024	+ '024
Sind and Rajputana . . . . .	+ '022	+ '006	+ '014
Central India . . . . .	+ '019	+ '011	+ '015
Central Provinces . . . . .	+ '007	+ '005	+ '006
Madras . . . . .	+ '002	— '013	— '006
Bombay . . . . .	+ '002	— '010	— '004

The chief features as indicated by the above are :

- (a) Slightly defective pressure in the south and west of the Peninsula.
- (b) Increased pressure in Upper India, more especially in Rajputana and the Punjab and the adjacent districts of the North-West Provinces. This feature was very persistent throughout the month and was unaffected by the changes of weather during the month. It will hence probably modify to a considerable extent the northward extension of the south-west monsoon current in June.
- (c) Slightly increased pressure, small in amount, and hence probably of little importance, in Central India and the Central Provinces.
- (d) Very deficient pressure in Behar, Bengal, Assam, and Burmah. This deficiency was to a large extent produced by the excessive temperature which prevailed in these areas during a large part of the month. This feature was however not so persistent as the excessive pressure in Upper India. The deficiency was large in the first half of May in Bengal, Assam, and Behar, and during the second half of May in Burmah. It will hence probably influence the extension of the south-west monsoon current in June (in the manner stated in the forecast already published), but it is difficult to estimate to what extent.

The only other feature of importance in the pressure conditions of the month are the local depressions. These were in all cases small and in no case gave rise to stormy winds over large areas. The following gives a brief statement of these depressions :

- (1) Depression in Central Burmah on the 8th and 9th. It caused moderate rain in South and Central Burmah, and filled up on the 10th.

- (2) Depression in Behar on the 14th which accompanied a strong, inrush of south-west winds across the Bengal Coast and gave moderate to heavy thundershowers over the greater part of Bengal on that day. It filled up on the morning of the 15th.
- (3) Depression in Sind on the 17th, 18th and 19th. This was apparently due to hot weather conditions, and was shortly afterwards followed by the transfer of the area of minimum pressure to Sind and Upper India.
- (4) Small depression off the Coromandel Coast on the 21st and 22nd. It gave some light showers on that Coast, and filled up on the 22nd.
- (5) Depression of May 22nd to 26th. On the 22nd a small depression lay over the Central Provinces and another over the north of the Bay. The former disappeared on the 23rd, and the depression in the Bay developed slightly and moved westwards towards the coast districts and eastern districts of the Central Provinces. It was throughout a large but a very shallow depression. It determined more or less general rain over a large portion of Central and Northern India, which occurred chiefly as thundershowers in Bengal, the North-West Provinces, Rajputana, Central India, and the Central Provinces. The depression filled up on the 26th and 27th.
- (6) A depression began to form off the South Malabar Coast on the 29th. It was at first apparently of small importance, but in the first week of June it advanced northwards along the Bombay Coast and developed into a cyclonic storm. Its history will be given in next month's report.

**Storms.**—The previous paragraph has shown that there was no large cyclonic storm during the month. Duststorms and thunderstorms were unusually numerous in Northern India, and were in some cases very violent. The following were reported during the month: Severe duststorms at Gya and Nowgong on the 4th; hailstorm at Belgaum on the 7th; violent duststorm at Jacobabad on the 7th; thunderstorm at Negapatam on the 12th, during which 4 inches of rain fell; violent duststorm at Karwar on the 14th; very severe thunderstorm with hail at Kishnagar on the 19th; duststorm at Sirsa on the 21st; violent duststorm with rain at Indore on the 21st; violent duststorm with hail and rain at Mount Abu on the 22nd; severe duststorm at Sirsa on the 22nd; a very heavy thunderstorm preceded by winds of almost hurricane force lasting for half an hour at Neemuch on the 22nd; and a severe nor'-wester at False Point on the 29th when the wind velocity averaged 32 miles per hour for a short period.

**Rainfall.**—The rainfall of the month has been of a somewhat unusual character. Rain fell daily in Assam from the 1st to the 13th; occasional showers were also received during this period in East Bengal and Burmah (chiefly on the 8th and 9th). The Punjab obtained local showers on the 10th and 13th, but the amounts were small.

Rain fell in large amounts in Assam from the 14th to the 18th, and nearly the whole of Bengal received moderate to heavy rain from thundershowers during the same period. Berhampore in Bengal obtained  $4\frac{1}{2}$  inches during a thunderstorm on the evening of the 15th. Two feeble advances of moist winds into the south of the Peninsula occurred during this period. The first took place on the 14th and 15th, and the second on the 17th and 18th. As usual the largest rainfall amounts were received in Ceylon and on the Malabar Coast. A brief interval of dry hot weather preceded a period of showery weather extending from the 21st to the 26th over a large part of the country including Burmah, Bengal, the North-West Provinces, Central Provinces, Central India, and Rajputana. Numerous thundershowers occurred during this period over the greater part of Northern and Central India, the chief effect of which was to cool the air very considerably and give a welcome break in the intensely hot weather which prevailed during the greater part of the month.

Assam and Burmah received moderate rain on the 29th, 30th and 31st. Heavy rain fell on the 29th in South-West Ceylon, and on the 30th and 31st on the South Malabar Coast. Colombo received  $3\frac{1}{2}$  inches and Mangalore  $2\frac{1}{2}$  inches on the 29th; Cochin 4 inches and Mangalore  $2\frac{1}{2}$  inches on the 30th, and Cochin  $3\frac{1}{2}$  inches on the 31st. This burst of rain was the commencement of that advance of south-west winds and general rain along the West Coast which is usually considered as the setting in of the south-west monsoon.

The month was drier than usual over the greater part of India. This was more especially the case in Lower Burmah and Bengal, in which moderately heavy rain is usually received. The actual rainfall in Lower Burmah was only 3.93 inches, the normal being 8.99 inches. The actual average rainfall of Bengal was 3.3 inches and the normal 6 inches. Rajputana, Central India, Guzerat, and the northern districts of the Central Provinces received larger amounts than usual in May due to the unusual fall in the fourth week of the month. The amounts were however not large, and the rainfall hence unimportant. The rainfall of the month was in moderate excess in Ceylon, and considerably above the average in Assam, which received an average of 19.4 inches or 4.8 inches above the normal. The variations in other districts were small and of no great importance.

The following table gives complete data and shows the actual average rainfall and the normal rainfall of the month of the twenty-one districts into which the country is divided, so far as it is indicated by the telegraphic reports of a few stations in each district:

Districts.	Number of Stations.	Normal Average Rainfall in May.	Actual Average Rainfall in May, 1889.	Difference from the Average in May, 1889.
Punjab, West . . . . .	7	1.31	1.54	+0.23
" East . . . . .	4	1.59	1.29	-0.30
North-Western Provinces, Trans-Gangetic . . . . .	7	1.22	0.88	-0.34
" " Cis-Gangetic . . . . .	3	0.42	0.31	-0.11
Behar . . . . .	2	1.79	1.45	-0.34
North Bengal . . . . .	3	5.72	2.79	-2.93
Assam—Cachar . . . . .	3	14.64	19.43	+4.79
Lower Bengal and Chutia Nagpur . . . . .	8	6.38	3.87	-2.51
Orissa—North Circars . . . . .	5	3.23	1.33	-1.90
Central Provinces, South . . . . .	7	0.87	0.24	-0.63
Berar—Khandeish . . . . .	2	0.65	0.51	-0.14
Rajputana, Central India, Sangor, and Nerbudda . . . . .	9	0.61	1.23	+0.62
Sind—Cutch . . . . .	3	0.07	0.74	+0.67
Guzerat . . . . .	3	0.22	0.79	+0.57
Konkan . . . . .	4	1.59	0.39	-1.20
Deccan—Hyderabad . . . . .	5	1.34	1.56	+0.22
Malabar . . . . .	5	8.01	6.30	-1.71
Mysore—Bellary . . . . .	4	4.12	2.81	-1.31
Carnatic . . . . .	6	2.56	1.92	-0.64
Lower Burmah . . . . .	7	8.99	3.93	-5.06
Ceylon . . . . .	1	12.84	14.84	+2.00

JOHN ELIOT,

*Meteorological Reporter to the  
Government of India.*

SIMLA, 26th June, 1889.

E. C. BUCK,

*Secretary to the Government of India.*

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

**Weather Review of India for the week ending 8 a.m. on  
Monday, June 24th, 1889.**

The weather has again been quiet during the past week. A small depression which was developed over Bengal passed westward into the central parts of the country during the early part of the week. During its existence normal monsoon weather prevailed over the greater part of the country. After its disappearance both the Arabian Sea and the Bay of Bengal currents became somewhat irregular, and the rainfall became patchy instead of general, and the heat, particularly over North-Western India, became very oppressive.

The Chart of the 18th showed that the depression which was forming over Lower Bengal at the close of the previous week had commenced a westerly advance, and its centre lay to the south of Hazaribagh. A strongish current from the Bay blew across the Bengal Coast, and as a south-east wind penetrated far into Upper India. Fairly normal conditions prevailed in other parts of India, though pressure in the western half of the country was more uniform than is usually the case. By the morning of the 19th the depression had reached the Central Provinces, the centre lying between Jubbulpore and Saugor. A well marked but comparatively feeble cyclonic circulation existed around the storm area. In other parts of the Indian region the winds were fairly normal, a westerly current blowing across the Peninsula and the Central parts of the country, a southerly current in Bengal, and a south-easterly current up the Gangetic plain. On the 20th relatively low pressures were reported from the whole of Bengal, the North-Western Provinces, and the north of the Central Provinces, but there was no well marked disturbance such as existed during the two previous days. The cyclonic circulation had consequently ceased, and the south-easterly current up the Gangetic plain had become much weaker and less general. Calms had at the same time appeared on the West Coast, and the wind became variable over the Peninsula, but on the Sind and Guzerat Coasts and inland over that region a strong monsoon was blowing. The Chart of the 21st showed that the south-easterly current up the Gangetic plain had entirely disappeared. On the West Coast and over the Peninsula calms and variable winds prevailed, while in Sind, Guzerat, and Central India strong westerly and south-westerly winds continued to blow. Pressure remained highest in Malabar and lowest in the Indus Valley, while small local depressions were shown in different parts of North-Eastern India. On the 22nd conditions were similar to those reported on the 21st. There was a large difference of pressure between the Malabar Coast and the Punjab, the major part of the difference occurring over North-Western India, where gradients were very steep. The monsoon current blowing from the Arabian Sea into the Peninsula was not strong, but over Sind, Guzerat, and Central India the force of the wind was high. South-westerly winds prevailed in the Gangetic plain, and the current from the Bay, instead of travelling northwestward up the Gangetic plain, passed into Eastern Bengal, Assam, and Burma. The Charts of the 23rd and 24th showed no important change beyond a further weakening of the monsoon current on the West Coast of the Peninsula.

*Temperature* has been high throughout the week in Upper India, but has been on the whole low elsewhere, more particularly over the Central Provinces, where on the 20th and 21st there was a deficiency of about  $10^{\circ}$ . In the Peninsula and Bengal temperature has been steady, and the mean average temperature of most days showed very little departure from the normal.

A comparison of the maximum readings of the 20th with the normals for that day exhibits very large variations of temperature over India; for instance, at Dera Ismail Khan the maximum was  $119^{\circ}$ , or  $11^{\circ}$  above the average; at Multan  $118.8^{\circ}$ , or  $13^{\circ}$  above the average; and at Jacobabad  $122.5^{\circ}$ , or  $11^{\circ}$  above the average, while at Hoshangabad the maximum was only  $76.2^{\circ}$ , or  $20^{\circ}$  below the average; and at Khandwa  $77.2^{\circ}$ , or  $19.8^{\circ}$  below the average.

The following table shows the excess or defect of the mean average temperatures of the different Provinces from the normal, both for the present and for the preceding week :

PROVINCE.	Difference of Mean Temperature of Last Week from Normal.	Difference of Mean Temperature of Present Week from Normal.
Burmah . . . . .	+ 0.1°	+ 0.7°
Bengal . . . . .	— 1.3°	— 0.2°
North-Western Provinces . . . . .	— 6.8°	— 3.0°
Punjab . . . . .	— 3.7°	+ 4.0°
Bombay . . . . .	+ 0.2°	+ 0.2°
Central Provinces and Berar . . . . .	— 2.0°	— 4.5°
Guzerat and Central India . . . . .	— 3.3°	— 2.0°
Sind and Rajputana . . . . .	— 2.3°	+ 0.2°
Madras . . . . .	+ 0.5°	+ 0.7°

These figures show that the relatively cool weather which prevailed last week has, except in the Punjab, continued. The main features of the table for the present week are the general agreement of the mean temperature with the normal, the considerable deficiency over the central parts of the country, and the considerable excess in the Punjab.

*Rain* has fallen in all parts of India, except the west of Rajputana, though all over North-Western India the amounts are very slight. There were some large amounts in connection with the depression which formed over Bengal, but as a rule the rainfall of the past week is made up of moderate general falls.

The reports of the 18th showed that slight rain had fallen in the south-west of the Peninsula, general rain over Burmah, the head of the Bay, Lower Bengal, and the Central Provinces, and scattered showers at a few places in the Gangetic plain. On the 19th rain had become more general both over the Peninsula and over the Gangetic plain, but otherwise the fall was similar to that of the 18th. On the 20th rainfall decreased again in the Gangetic plain, but otherwise there was again no change. The reports of the 21st showed an extension of rain into the Punjab, but that the rainfall all over the country was light. On the 22nd rain ceased all over the central parts of the country, and the fall was practically confined to the Peninsula, Burmah, Assam, North Bengal, and a small tract of country in Upper India containing the stations of Delhi, Lucknow, Bareilly, and Roorkee. On the 23rd rain was a trifle more general in the Gangetic plain, but on the 24th it again fell off, and the principal rainfall districts were the regions noted on the 22nd.

Of the fifty-one rainfall divisions one gives no return, one is not comparable with any average, one reports no rain, fourteen exhibit an excess, and thirty-four exhibit a deficiency.

In Burmah all the divisions, except Central Burmah, exhibit a deficiency. This is also the case in East Bengal and in Assam (Surma), but in Assam (Brahmaputra), Deltaic, Central, and North Bengal as well as in Orissa and Behar the rainfall has exceeded the average. Chota Nagpur and the greater part of the North-Western Provinces have received deficient rainfall, but along the line of the hills both in the North-Western Provinces and Oudh there has been an excess. The Punjab hills also had more than the average, but on the plains, as in the North-Western Provinces, there was a deficiency. The Peninsula and the central parts of the country, with the exception of the following divisions, Madras (South Central), Central Provinces (West), and Central India (East), had less than the normal amount, though in the majority of divisions the deficiency was not very large.

The final column of the table shows that up to date the season's rainfall over the greater part of the country has been fairly good. The divisions, where the deficiency is large, are the North-West Provinces (West), the Punjab (Central), Mysore, Khandeish, Sind, Kattiawar, Hyderabad, and Madras (South). Over Northern India, except the Punjab, there is a general excess.



Province.	Division.	RAINFALL DATA FOR WEEK ENDING JUNE 24TH, 1889.			RAINFALL DATA FROM MAY 13TH TO JUNE 24TH, 1889.		
		Average Actual Rainfall of Division.	Average Nor- mal Rainfall of Division.	Excess or Defect, in Inches.	Average Actual Rainfall of Season to date.	Average Nor- mal Rainfall, May 13th to June 24th.	Excess or De- fect of (Season- al) Rainfall expressed as a per- centage.
		Inches.	Inches.	Inches.	Inches.	Inches.	Per cent.
BURMAH	Tenasserim . . . . .	6'59	9'64	— 3'05	44'23	45'52	— 3
	Lower Burmah . . . . .	4'18	4'23	— 0'05	17'12	23'07	— 26
	Central Burmah . . . . .	4'45	3'74	+ 0'71	13'03	18'72	— 30
	Upper Burmah . . . . .	1'57	?	?	12'52	?	?
	Arakan . . . . .	10'96	14'35	— 3'39	50'78	52'26	— 3
BENGAL AND ASSAM	Eastern Bengal . . . . .	3'83	4'82	— 0'99	19'52	22'10	— 12
	Assam (Surma) . . . . .	3'53	5'12	— 1'59	37'38	30'73	+ 22
	Do. (Brahmaputra) . . . . .	6'80	4'51	+ 2'29	25'04	20'11	+ 25
	Deltaic Bengal . . . . .	3'90	2'57	+ 1'33	12'42	11'06	+ 4
	Central Bengal . . . . .	2'90	2'81	+ 0'09	12'70	11'15	+ 14
	North Bengal . . . . .	8'04	7'37	+ 0'67	24'63	26'92	— 9
	Orissa . . . . .	2'45	2'16	+ 0'29	8'89	7'85	+ 13
	Chota Nagpur . . . . .	1'97	2'39	— 0'42	6'80	7'69	— 12
	Behar (South) . . . . .	2'44	1'71	+ 0'73	5'49	5'06	+ 8
	Do. (North) . . . . .	3'14	2'43	+ 0'71	8'89	7'71	+ 15
NORTH - WESTERN PROVINCES AND ODDH.	North - Western Provinces (East). . . . .	0'91	1'54	— 0'63	3'66	3'29	+ 11
	Oudh (South) . . . . .	1'14	1'72	— 0'58	5'27	3'32	+ 59
	Do. (North) . . . . .	1'94	1'68	+ 0'26	5'07	4'41	+ 15
	North - Western Provinces (Central). . . . .	0'68	1'02	— 0'34	2'97	2'49	+ 19
	North - Western Provinces (West). . . . .	0'22	1'13	— 0'91	1'40	2'74	— 49
	North - Western Provinces (Submontane). . . . .	2'07	1'46	+ 0'61	5'93	4'26	+ 40
PUNJAB	Punjab (South) . . . . .	0'01	0'43	— 0'42	2'01	1'63	+ 23
	Do. (Central) . . . . .	0'27	0'93	— 0'66	1'18	2'21	— 47
	Do. (Submontane) . . . . .	0'23	0'71	— 0'48	1'77	2'18	— 19
	Do. (Hill Districts) . . . . .	3'49	2'26	+ 1'23	7'07	8'30	— 15
	Do. (North-West) . . . . .	0'17	0'41	— 0'24	1'03	2'00	— 19
	Do. (West) . . . . .	0'09	0'16	— 0'07	0'94	0'99	— 5
BOMBAY AND MALA- BAR COAST DIS- TRICTS (MADRAS).	Malabar . . . . .	4'78	6'18	— 1'40	37'01	37'41	— 1
	Madras (South Central) . . . . .	0'89	0'51	+ 0'38	4'58	4'39	+ 4
	Coorg . . . . .	4'41	4'51	— 0'10	21'38	25'72	— 17
	Mysore . . . . .	0'37	0'57	— 0'20	2'08	4'88	— 57
	Konkan . . . . .	3'98	8'21	— 4'23	24'23	24'09	+ 1
	Bombay Deccan . . . . .	0'33	1'48	— 1'15	5'33	6'61	— 20
	Hyderabad (North) . . . . .	...	...	...	...	...	...
	Khandeish . . . . .	0'34	1'03	— 0'69	2'64	5'23	— 50
CENTRAL PROVINCES AND BERAR.	Berar . . . . .	1'53	1'81	— 0'28	3'68	5'38	— 32
	Central Provinces (West) . . . . .	2'57	2'21	+ 0'36	4'51	6'15	— 27
	Ditto (Central) . . . . .	2'78	2'82	— 0'04	5'59	6'62	— 16
	Ditto (East) . . . . .	2'05	2'90	— 0'85	5'05	8'02	— 30
BOMBAY (NORTH)	Guzerat . . . . .	0'22	1'68	— 1'46	3'48	4'13	— 16
	Kattiawar . . . . .	0'01	0'88	— 0'87	0'64	2'56	— 75
	Sind . . . . .	0'02	0'04	— 0'02	0'09	0'22	— 59
RAJPUTANA AND CEN- TRAL INDIA.	Central India (East) . . . . .	1'95	1'53	+ 0'42	4'75	4'09	+ 16
	Rajputana (East), India (West). . . . .	0'05	0'82	— 0'77	2'79	2'69	+ 4
	Rajputana (West) . . . . .	0	0'51	— 0'51	2'19	1'40	+ 56
MADRAS	East Coast (North) . . . . .	1'18	1'71	— 0'53	5'17	5'85	— 12
	Hyderabad (South) . . . . .	0'60	1'12	— 0'52	2'43	3'97	— 40
	Madras (Central) . . . . .	0'50	0'10	+ 0'40	2'88	3'83	— 25
	East Coast (Central) . . . . .	0'51	0'90	— 0'39	3'23	3'31	— 2
	Ditto (South) . . . . .	0'30	0'43	— 0'13	2'67	2'99	— 11
	Madras (South) . . . . .	0'09	0'14	— 0'05	1'08	2'25	— 52

W. L. DALLAS,

SIMLA, 27th June, 1889.

Assistant Meteorological Reporter to the  
Government of India.

E. C. BUCK,

Secretary to the Government of India.

## GOVERNMENT OF INDIA.

## REVENUE AND AGRICULTURAL DEPARTMENT.

## Weekly Report on the State of the Season and Prospects of the Crops.

**Madras.**—*For week ending 22nd June.*—Slight rain in Nellore, Cuddapah, Madras, Trichinopoly, Madura, Tinnevely, Coimbatore; good on West Coast and Nilgiris; fair elsewhere; nearly  $\frac{3}{4}$  inch in Ganjam. Crops generally good, but withering in parts of Ganjam and Cuddapah; suffering from want of rain or water in parts of Vizagapatam, North Arcot, Trichinopoly, Tinnevely, Coimbatore, and Salem. Dry crops blighted in Coimbatore. Water-supply insufficient in Ganjam, parts of Vizagapatam, Cuddapah, Coimbatore, Tinnevely, and Salem. Stock suffering badly, chiefly from rinderpest, in Tinnevely, Malabar, Tanjore, and Anantapur. Prices rising in seven districts, falling in seven, and stationary in others. Prices of all grains rose in Ganjam: 1,478 deaths from cholera in that district. Labourers employed last day of week,—on Rushikulya works, 4,986; Gopalpore Canal, 2,345; Ghat Roads, 1,168. Average daily number on drinking-water tanks and wells, 6,222; on minor irrigation and other works, 5,282. Number on gratuitous relief on 15th, 8,848. No exact information regarding stocks of grain; but judging from special weekly and fortnightly reports, they are believed to be fair. General prospects favourable and beginning to improve in Ganjam.

**Bombay.**—*For week ending 26th June.*—Rain throughout Presidency Proper and in Karachi, but insufficient in parts of Ahmedabad, Kaira, Broach, Surat, Khandesh, Nasik, Poona, Ahmednagar, Sholapur, Satara, Belgaum, Dharwar, and Kathiawar, and sowing therefore retarded in many places. Sowing progressing in parts of Surat, Thana, Poona, Satara, Bijapur, Dharwar, and Kanara. Young crops good in Colaba, Poona, Sholapur, Belgaum, Kanara, and Baroda, and cotton flourishing in Shikarpur. Transplantation progressing in Poona. *Rati* blight in Mirpur Botoro in Karachi district. Locusts appeared in parts of Karachi, but no damage done. Fodder scarce in Khandesh and in parts of Guzerat, Karachi, Nasik, Poona, Ahmednagar, and Dharwar. Water scarce in parts of Khandesh, Ahmednagar, and Dharwar.

**Bengal.**—*For week ending 25th June.*—Heavy and general rain during the week. A break is now desirable. Cultivation is proceeding satisfactorily. Paddy and all *bhadoi* sowings are in progress, and the early sown paddy and jute crops are coming up well. Sugarcane, indigo, and all other standing crops have improved by the rain and are now promising. Prices remain steady and high throughout the Province. In the affected districts of Durbhanga, Muzaffarpur, and Champaran common rice is quoted at  $12\frac{1}{2}$  seers, 12 seers, and 11 seers per rupee, respectively. In the Sonthal Pergunnahs district test relief works are still going on. Distress continues in the Contai sub-division of Midnapore, and is also reported from the Orissa Tributary Mehals.

**North-Western Provinces and Oudh.**—*For week ending 26th June.*—Rain has fallen more or less generally over the Provinces, but its distribution has been very unequal: Gorakhpur reporting 9.5 inches, and none in Benares. In Meerut rain is wanted for the area already sown. Ploughings and sowings for the *kharif* are everywhere in progress. Markets are well supplied, though prices have risen in Lucknow, Benares, Ballia, Farukhabad, Sitapur, Kumaun, and Meerut.

**Punjab.**—*For week ending 26th June.*—Rain has fallen in most districts. Prices rising in Jullundur and Rawalpindi; falling in Shahpur; unsettled in Peshawar; and stationary elsewhere. Ploughings for and sowings of *kharif* in progress. Some *rabi* crops are still uncleared in certain districts. More rain wanted for *kharif* sowings in Hissar, Delhi, Sialkote, and Shahpur. Standing

crops in good condition. Stock-cattle are reported healthy. Pasturage or fodder sufficient throughout the Province.

**Central Provinces.**—*For week ending 26th June.*—Good rain has fallen in northern districts, and sowings are progressing favourably, they are somewhat retarded in the south for want of rain. The fall has been moderate in the eastern districts, but enough for sowing.

**Burma.**—*For week ending 22nd June.*—The rainfall was heavy in most districts throughout Burma. The food-supply is sufficient. Cattle-disease is still prevalent in some of the Lower Burma districts, and is reported to be prevalent in some of the Upper Burma districts. In Lower Burma the fluctuations in the price of paddy are very slight. In Upper Burma a slight rise is noticeable in Shwebo and Kyaukse, in other districts the price is stationary.

**Assam.**—*For week ending 26th June.*—Weather seasonable. Sowing of winter rice continues. Reaping of summer rice commenced. Prospects of tea good, except in Cachar, where red spider prevalent.

**Mysore and Coorg.**—*For week ending 26th June.*—Rainfall good in parts of Kadur and Shimoga districts in Mysore, elsewhere scanty. Standing crops good, except in Mysore district. Sowing operations continue in parts, but more rain is wanted in Bangalore, Kolar, and Mysore districts. No material change in prices.

Light intermittent rains in Coorg during the week. Health indifferent.

**Berar and Hyderabad.**—*For week ending 26th June.*—Weather warm and cloudy in Berar. Average rainfall fair. Cotton sowing in progress. Fodder insufficient. Agricultural stock good. Prices stationary.

Some rain during the week in Hyderabad. *Kharif* sowings in progress. Scarcity of fodder still felt. Prices stationary.

**Central India.**—*For week ending 26th June.*—Agricultural operations started in Baghelkhand and Goona Agencies. Condition of pasturage slightly improved in Bundelkhand. Prices of food-grains rising in Bundelkhand and Neemuch. Rain fairly general throughout Central India, but Neemuch and Western Malwa still report fall insufficient.

**Rajputana.**—*For week ending 26th June.*—Rainfall in some States. Agricultural operations progressing generally. Agricultural stock poor in Meywar and Bickaneer. Pasturage or fodder sufficient, except in Marwar, Kherwara, Meywar, and Dholepore. Prices rising in Marwar, Meywar, Haroti, Kishangarh, Keroli, and Dholepore.

**Nepal.**—*For week ending 20th June.*—Seasonable rain. Weather hot and cloudy. Agricultural operations are in progress. Prospects good.

E. C. BUCK,

*Secretary to the Government of India.*



GOVERNMENT OF INDIA.  
PUBLIC WORKS DEPARTMENT.  
RAILWAY TRAFFIC.

No. IX OF 1889-90.

APPROXIMATE STATEMENT OF GROSS RECEIPTS AND EXPENSES OF INDIAN RAILWAYS.

N.B.—As regards the figures in column *Total Receipts from 1st April to date*, audited figures have been used as far as possible.

Test Return received.	RAILWAYS.	Total mean length open.	RECEIPTS FOR WEEK ENDING 2ND JUNE, 1888.		Total mean length open.	RECEIPTS FOR WEEK ENDING 1ST JUNE, 1889.		TOTAL RECEIPTS FROM 1ST APRIL TO 2ND JUNE, 1888.		TOTAL RECEIPTS FROM 1ST APRIL TO 1ST JUNE, 1889.		Total increase in 1889-90.	Total decrease in 1889-90.
			Total.	Per mile open.		Total.	Per mile open.	Total.	Per mile open per week.	Total.	Per mile open per week.		
	<i>State Lines worked by Companies.</i>		<i>Rs.</i>	<i>Rs.</i>		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
June, 1889	East Indian	1,514	9,08,534	600	1,514	9,08,695	600	87,91,414	645	86,38,638	634	...	1,52,756
ditto	Patna-Gya.	57	6,794	119	57	7,500	131	83,323	162	83,583	162	260	...
ditto	Dildarnagar-Ghazipur	12	1,173	98	12	938	78	12,354	114	9,079	84	...	3,275
ditto	Rajputana-Malwa	1,664	4,21,039	253	1,664	4,76,000	286	36,65,247	245	42,35,702	287	5,70,455	...
ditto	Bengal-Nagpur (a)	186	40,605	218	293	48,033	164	3,96,811	237	5,03,289	194	1,06,478	...
ditto	Southern Maratha (b)	850	80,292	94	857	95,476	111	7,55,393	99	8,21,009	106	66,606	...
ditto	Do. Mysore Section	140	10,764	77	219	13,210	60	94,856	75	1,28,778	65	33,922	...
ditto	Indian Midland	211	(c) 24,189	115	588	(d) 68,070	116	(c) 2,16,993	114	(d) 6,25,598	120	4,08,605	...
ditto	Villupuram-Dharma- veram (Nellore Branch)	83	4,942	60	83	4,909	59	36,933	49	40,216	55	3,283	...
ditto	Bareilly-Pilibhit.	36	1,461	41	36	1,900	53	15,897	49	21,224	60	5,327	...
	<b>TOTAL</b>	<b>4,753</b>	<b>14,99,793</b>	<b>316</b>	<b>5,323</b>	<b>16,24,731</b>	<b>305</b>	<b>1,40,69,131</b>	<b>329</b>	<b>1,51,08,036</b>	<b>320</b>	<b>10,38,905</b>	<b>...</b>
	<i>State Lines worked by Government.</i>												
June, 1889	North-Western (e)	2,411	4,49,776	187	2,386	5,30,853	222	43,11,718	199	47,98,814	227	4,87,096	...
ditto	Oudh and Rohilkhand	693	1,45,259	210	692	1,65,501	239	15,19,788	245	16,41,367	264	1,21,579	...
ditto	Bengal Central	125	11,505	92	125	11,920	95	1,03,447	92	1,17,994	105	14,547	...
ditto	Wardha Coal	45	13,059	290	45	12,173	271	1,44,502	357	1,65,916	416	21,414	...
ditto	Eastern Bengal Rail- ways	673	1,60,562	239	673	1,64,880	245	13,00,036	215	14,11,706	233	1,11,670	...
ditto	Nalhati	27	1,604	59	27	1,797	66	16,252	66	14,704	60	...	1,548
ditto	Tirhoot	259	34,488	133	273	40,161	147	3,53,548	152	3,52,434	143	...	1,124
ditto	Lucknow-Sitapur- Sihramau	105	5,503	52	105	9,040	86	50,906	54	67,175	71	16,269	...
ditto	Jorhat	31	1,336	44	25	1,521	60	8,730	31	9,879	37	1,149	...
July, 1889	Cherra-Companyganj.	...	...	...	...	(f) ...	...	(g) 466	9	(h) 338	6	...	128
Aug., 1889	Burma	392	64,376	164	553	94,404	171	5,97,983	182	8,91,502	179	2,93,519	...
	<b>TOTAL</b>	<b>4,761</b>	<b>8,87,468</b>	<b>186</b>	<b>4,904</b>	<b>10,32,250</b>	<b>210</b>	<b>84,07,376</b>	<b>197</b>	<b>94,71,819</b>	<b>218</b>	<b>10,64,443</b>	<b>...</b>
	<i>Lines worked by Guar- anteed Companies.</i>												
June, 1889	Madras	840	1,60,688	191	840	1,83,789	219	14,53,342	192	16,37,943	220	1,84,601	...
ditto	South Indian	654	1,21,987	187	654	1,22,319	187	9,88,611	168	10,43,000	180	54,389	...
ditto	Great Indian Penin- sula	1,504	(i) 11,45,040	762	1,447	(j) 7,52,429	520	1,07,67,386	791	(j) 82,38,783	643	...	24,68,603
ditto	Bombay, Baroda and Central India (k)	461	2,93,543	637	461	3,02,000	655	29,35,073	707	29,56,358	724	21,285	...
	<b>TOTAL</b>	<b>3,459</b>	<b>17,21,258</b>	<b>498</b>	<b>3,402</b>	<b>13,60,537</b>	<b>400</b>	<b>1,60,84,412</b>	<b>517</b>	<b>1,38,76,684</b>	<b>461</b>	<b>...</b>	<b>22,08,328</b>
	<b>TOTAL (GUARANTEED AND STATE)</b>	<b>12,973</b>	<b>41,08,519</b>	<b>317</b>	<b>13,629</b>	<b>40,17,518</b>	<b>295</b>	<b>3,85,60,919</b>	<b>331</b>	<b>3,84,55,939</b>	<b>318</b>	<b>...</b>	<b>1,04,980</b>
	<b>GROSS ESTIMATED EXPENSES</b>	...	...	...	...	...	...	<b>1,74,79,875</b>	<b>150</b>	<b>1,76,23,421</b>	<b>146</b>	<b>1,43,546</b>	<b>...</b>
	<b>NET RECEIPTS</b>	...	...	...	...	...	...	<b>2,10,81,044</b>	<b>181</b>	<b>2,08,32,518</b>	<b>172</b>	<b>...</b>	<b>2,48,526</b>
	<i>Assisted Companies.</i>												
June, 1889	Tarakeshwar	22	5,216	237	22	5,106	232	60,741	303	58,994	295	...	1,747
July, 1889	Dibru-Sadiya	...	...	...	...	(f) ...	...	(l) 66,481	107	(m) 76,405	122	9,924	...
Aug., 1889	Bengal and North- Western	376	74,752	199	376	57,400	153	5,43,918	161	5,36,356	161	...	7,562
ditto	Rohilkhand-Kumaun	67	7,484	112	67	7,033	114	68,640	114	74,731	124	6,091	...
	<b>TOTAL</b>	<b>465</b>	<b>87,452</b>	<b>188</b>	<b>465</b>	<b>70,139</b>	<b>151</b>	<b>7,39,780</b>	<b>151</b>	<b>7,40,486</b>	<b>155</b>	<b>6,706</b>	<b>...</b>
	<i>Native States.</i>												
June, 1889	His Highness the Ni- zam's Guaranteed Company	277	29,735	106	354	35,805	101	2,79,000	112	3,64,721	116	85,721	...
ditto	His Highness the Gaekwar's	59	2,878	49	59	2,470	42	33,819	64	27,811	53	...	6,008
ditto	His Highness the Gaek- war's Verangam- Mehsana-Vadnagar	21	952	45	27	1,000	37	11,027	58	11,218	47	191	...
ditto	Bhavnagar-Gondal- Junagarh-Porbandar	193	21,920	114	260	27,414	105	2,45,451	141	3,29,101	143	83,650	...
ditto	Morvi	68	4,767	70	68	4,636	68	48,271	79	47,239	77	...	1,032
ditto	Jodhpore	124	7,286	59	124	6,500	52	71,550	64	65,023	59	...	6,527
	<b>TOTAL</b>	<b>742</b>	<b>67,538</b>	<b>91</b>	<b>892</b>	<b>77,825</b>	<b>87</b>	<b>6,89,118</b>	<b>103</b>	<b>8,45,113</b>	<b>107</b>	<b>1,55,995</b>	<b>...</b>

Includes the Katni-Umaria Branch.  
Includes the Bellary-Kistna State Railway.  
Includes the Sindia State Railway.  
) Includes the Sindia and Bhopal-Itarsi State Railways.  
) Includes the Amritsar-Pathankot and Rajpura-Bhatinda State Railways.  
) Return not received.  
) Total receipts from 1st April to 19th May, 1888.

(k) Total receipts from 1st April to 18th May, 1889.  
(l) Includes the Dhond-Manmad, Khamgaon, Amraoti, and Bhopal-Itarsi State Railways.  
(j) Includes the Dhond-Manmad, Khamgaon, and Amraoti State Railways.  
(k) Includes the Patni Branch.  
(i) Total receipts from 1st April to 26th May, 1888.  
(m) Total receipts from 1st April to 25th May, 1889.

MLA, 27th June, 1889.



M. C. BRACKENBURY, Major, R.E.,  
Under Secretary.

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